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WEDNESDAY, OCT. 2, 1889.

LEADING TOPICS THIS WEEK.

The Paris Exposition.
The peppermint oil situation.
Petroleum options.
The adulteration of cassia oil.
Notorious house organs.
Another olive oil scare.
The lard rejections.
A new use for menhaden oil.
Interesting cinchona statistics.
Higher prices for potato starch.
The commercial congress.
The convention of wholesale druggists.
Progress of the glass combination.
Meeting of the Chicago Paint and Oil Club.

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WEEKLY REVIEW.

The money market has been active during the past week. The rate for call loans has ranged from 30% to 4½% and closes at 2½%. Time loans rule 5½% for 30 to 60 days and 6% for 4 to 6 months.

The supply of commercial paper is good but the demand is light. We quote 60 to 90 days indorsed bills receivable at 5½, first class four months commission house names at 6@6½ and good, single names (jobbers) having four to six months to run at 6½@7½. Following are the rates of exchange on New York: Savannah buying ¼ discount, selling ⅜ discount@par Charleston, buying ⅛@3-16 discount, to par, New Orleans commercial, $1 50 per $1,000 discount; bank par; St. Louis, 25c per $1,000 premium; Chicago, 25c per $1,000 discount. Sterling exchange is dull.

Sterling 60 days, nominal	4 84½@	
sight, nominal	4 83½@4	89
60 days, actual	4 83¼@4	83½
sight, actual	4 88 @4	88¼
Cable transfers	4 89 @4	89¼
Commercial, 60 days	4 82¼@4	82½
Paris 60 days	5 20⅝@5	20
sight	5 17½@5	16⅞
com., 60 days	5 22½@5	21⅞
com., sight	5 19⅝@4	18¾
Antwerp, 60 days	5 23⅛@5	22½
Swiss, 60 days	5 21¼@5	20⅝
sight	5 18½@5	17½
Reich marks (4) 60 days	94⅝@94¾	
(4) sight	95¼@95⅝	
(4) nom., 60 days	94¼@94¾	
(4) com., sight	94⅞@95	
Guilders, 60 days	40 1-16@40½	
sight	40¾@40 5-16	
com., 60 days	39⅞@39 15-16	
com., sight	40 1-16@40⅜	
Copenhagen, Stockholm and Christiana, Krona, 60 days	26¾@26⅞	
sight	27 @27⅛	

THE PARIS EXPOSITION.

The advance cable reports of the distribution of awards to exhibitors at the great Universal Exposition in Paris, are too meager to admit of extended comment. However, if we may judge by the liberality displayed in the awards made to governmental, educational, scientific, and other institutions of the United States, the representative trades in which the REPORTER'S readers are particularly interested, have received handsome and substantial recognition. The ceremony attending the distribution of prizes and medals took place on Sunday last, and was a most imposing and magnificent demonstration, in which representatives of all nations participated.

THE PEPPERMINT OIL SITUATION.

A thorough canvass of the market proves quite conclusively that an improvement in the position of peppermint oil has occurred during the past week or ten days—slight, it may have boen, but enough to show that the bear influence before alluded to in these columns is not so strong as it was a few weeks since. Although we cannot now positively assert that Western bulk oil cannot be purchased at the present time in this market at one dollar and seventy-five cents per pound, there is documentary evidence to show that one dollar and eighty-two and a half cents has been paid for prime Western oil in the primary market by dealers who are not in the habit of paying more than goods are worth. At the same time, while case oil may be sold by some holders at two dollars and forty-five cents by the single case, and, to make a point the same price might be accepted by the same dealers for a larger quantity, the general market price is five to ten cents more, and we know that two dollars and a half has been paid in more than one instance during the past week by dealers who are in a position to know the exact state of the market, and who certainly would not have paid that price, if they could have bought as much oil from those dealers who were quoting lower figures. All of which goes to show that what purports to be a market price is not always a market price, and that when an operator tries to bear the market he cannot hope to be successful unless he is willing and able to sell as freely at the price he quotes as others are to buy.

The reported collapse of the effort to bear the London market in the interest of American operators also proves that it is not so easy to manipulate the peppermint oil market this year as it has been in times gone by. There has not been the same margin to work on as in former years, and, although English buyers have been holding back orders in expectation of lower prices, they seized their opportunity when they sawit, and the result was that the bears on the London market had their offerings taken up much more promptly than they had bargained for.

It may be that the yield of oil this year will be ample or even in excess of consumptive requirements. It is possible that there will be no marked improvement in the position of peppermint oil from now until the end of the season. But that will certainly be contrary to precedent, a precedent followed year after year, when the distilling season having ended and the season of largest consumption having set in, prices in the distributing markets have rapidly recovered and the bears have reaped their reward.

It is said to have been a singular fact in connection with the depression in the market for American oil, that an active demand from the interior for the Japanese product has been noted. Although the term "Western peppermint oil" is not so elastic as it was a few years ago, it nevertheless embraces a variety of meanings, and the consumer who is not over-scrupulous, or who may not be as well posted as his neighbor will have no difficulty in buying "Western peppermint oil" at less than the current market prices, and in many cases at less than the prices paid for pure western oil by the large jobbers.

THE ADULTERATION OF CASSIA OIL.

In a recent issue of the *Chemist and Druggist*, of London, we find a very interesting article under the above caption, in which is given the substance of a letter from an analyist to whom the dealers of Hong Kong have been in the habit of submitting cassia oil for certification of its purity, and upon this letter are made some very pertinent comments, the tenor of which is to throw doubt upon the accuracy of its author's conclusions. The letter in question was written in reply to statements made last spring by a German firm of high reputation in both hemispheres, which statements were, at the time of their publication, very full and carefully considered by our English contemporary. The assertions of this German firm had, at about this time, a practical demonstration in this country in the rejection of several lots of cassia oil by New York merchants because of their sophistication, the percentage of foreign matter found in the oil tallying closely with that discovered by the analyses made in Germany.

The Hong Kong analyst intends to explain in his letter that the presence of the substance claimed to be colophony or pitch, and of the liquid said to be petroleum, is perfectly natural to the oil under certain conditions, as he proposes to show in the following manner:

"Under the eyes of the same gentlemen was then added to rectified oil of cassia (with 2 per cent. of resin of oil of cassia) 18 per cent. of colophony and 2 per cent. of petroleum. Result—Specific gravity 1,049, not soluble in alcohol of 80 per cent. By addition of more colophony the mixture became muddy, separating in a very short time. An addition of more than 2 per cent of petroleum was at once detected by the smell, the latter covering wholly the fragrance of oil of cassia. The separation of oil of cassia from petroleum took place immediately after ceasing shaking. No one would have bought such a mixture, betraying the fraud simply by appearance. Messrs. Schimmel's chemist did not seem to be sure about his finding the resin by distillation over free fire, and so he resorted to distillation by overheated steam. He observed the strange phenomenon that the greater part of the product sank under water, and another part gathered on the surface of the water. This liquid lighter than water he at once put down to be petroleum, whereas it is stated in several standard works that the cherry-red or brownish colored oil of cassia by redistillation separates in two pale yellow oils, one lighter (amounting to about one-fourth of the whole), the other heavier, than water. The loss by this process is estimated about 10 per cent. This was known as far back as 1857. Stohmann, in "Muspratt's Chemie," says, quite distinctly, that by distilling oil of cassia yields also a lighter liquid than water, and declares it to be a kind of hydrocarbon not yet fully studied. Messrs. Schimmel & Co.'s chemist named this lighter liquid, short and sweet, 'petroleum'! Let him take the same amount of real petroleum and mix it with oil of cassia, and he will see, very soon, the vast difference! All the standard books also mention expressly that the oil of cassia absorbs oxygen from the air, "thickens," and forms "different resins" and cinamylic acid. The records kept here show that the 'least' quantity of resin of oil of cassia was 8·5 per cent., in average 12 per cent. though Dr. Hager admits that the oil of cassia, after a year's keeping, can have as much as '35 to 40 per cent. of resin,' not volatile at a temperature of 240° Celsius."

This might satisfy consumers of cassia oil that they have not been imposed upon by an adulterated article, but even if the letter, of which the above is an extract, did not contain elsewhere a number of incongruous statements, which detract from the value of its author's assertion, it would be difficult to convince American dealers that the rejected oil before alluded to was a natural product, and that it cannot be duplicated by an admixture of pure cassia oil, rosin and petroleum in the proportions shown by analysis of the rejected stuff. If they can be convinced on the first point, they will prefer as a matter of economy, as has been done already in certain instances for profit, to do their own mixing. In that event, however, we fear the consumption of cassia oil in this country will suffer material shrinkage.

It is highly probable that Messrs. Schimmel & Co. will not allow the Hong Kong letter to pass without answer, and in a few days, therefore, we may have another chapter to add to the interesting history of the composition of commercial oil of cassia. In the meantime, dealers here will keep a sharp watch upon whatever oil may come from China.

PETROLEUM OPTIONS.

A majority of those members of the Consolidated Stock and Petroleum Exchange who deal in petroleum certificates have become dissatisfied with the present rules under which such transactions are made, and have petitioned the board of directors to call for a vote of the conference of exchanges on the following amendment to the rules governing bids and offers:

"All public bids and offers shall be for National Transit Company pipe line certificates, and unless specified to the contrary at the time of trade, shall be delivered the following day.

The same arguments are put forward in favor of the change that were presented when the change from regular to options was advocated, and the members who favored the former change are now advocating a return to trading for delivery on the day following the sale and purchase. It will be seen that the proposed change does not restore the former rule, but makes option trading admissible, only defining that "regular" transactions shall be for delivery on the succeeding day. It will be remembered that during the discussion of the question when the first change was proposed, some of the Western members strongly advocated the plan now proposed, but a radical change was insisted upon, and no compromise would be entertained. Under the present rules, trading for delivery to-morrow, or any other time, is permissible, and if dealers prefer to buy and sell for to morrow's delivery, there is nothing in the rules to prevent, but the fact that the impression prevails outside of the exchanges that transactions must of necessity be for next month's delivery, is given as a strong argument to make the change. We believe that the proposed plan is the better, but do not believe that the change will accomplish what its advocates expect. Before the change to option trading, business had become extremely dull on all the exchanges, and it was confidently asserted that all that was needed to revive activity in speculative trading in pipe line certificates was a resort to option trading. This has been given a fair trial and the result has been a sore disappointment. The adoption of the amendment will probably not bring about a marked improvement in trading, but its advocates say, and truthfully, that it can not make business any worse than it has been during the past few months. The conference of exchanges will vote on the proposed amendment this week, and should it be adopted it will be put into effect without delay. The Pittsburg and Philadelphia exchanges are in favor of the amendment, thus insuring eight votes out of the total of fourteen. Oil City and Bradford, however, have already informally passed upon the matter, showing a strong opposition thereto, and if they persist it will defeat the measure, as they together have six votes, while it

requires two-thirds of all the votes to secure its adoption. It is hoped, however, that the Oil City Exchange will accept the amendment when officially brought before it.

NOTORIOUS HOUSE ORGANS.

On another page will be found the particulars of a ludicrous "Wild-West" journalistic comedy, which almost terminated in a tragedy, because the manager of a weakly house organ with a checkered career, desired to be treated better than the patrons of the sheet. We should apologize for using the word "journalistic," as publications of that character are to be considered outside of the legitimate field of journalism. They are transgressors, but manage to eke out an uncertain existence by misrepresentation and bull dozing methods of a very questionable nature.

Our remarks have no reference to the prices currents and circulars issued in the regular form, but to those papers or alleged journals published with fraudulent intent and in the direct interest of jobbing houses that seek to increase their profits at the expense of credulous victims. The "stand and deliver" policy of the deceptive management had a practical illustration in the fracas which occurred last week, and the administration of a dose of their own medicine, may convince the private owners of the journalistic barnacles that it is a losing game to allow grasping proclivities to run riot with good judgment, and that the exercise of honest principles is essential to success in business.

The frequent exposure of the disreputable methods practiced by the house organs to secure patronage, has made them very unpopular among the better class of merchants who will not countenance blackmailing schemes, no matter in what form presented, although threatened with a loss of trade and followed by unjust reflections or a tirade of abuse in the dull columns of the sheets, whose owners have the monumental assurance to call them "trade papers."

ANOTHER OLIVE OIL SCARE.

Olive oil purchases are being carefully examined to detect adulteration, and the trade is being warned from different quarters to look out for fraudulent practices which have been encouraged abroad by the high prices ruling for olive oil, and largely increased shipments, from this port, of cotton oil at relatively low rates. The agitation of the subject was probably started to influence the market on olive oil, as there is no substantial foundation for the scare, so far as New York is concerned. The large business done in cotton oil lately was for future shipment, as the product has yet to be made to fill the foreign contracts, and it will be next January before the article can be used on the other side. The fine quality of cotton oil in demand for export would strongly indicate that the adulteration, if practiced at all by the olive oil dealers on the other side, is principally confined to salad oils which are consumed in the European markets. Importers here are exercising care to avoid receiving and selling questionable goods, and they have yet to learn of a single rejection or suspicious quality this season, although considerable oil changed hands during the past two months. We are informed on good authority that no mixtures are imported, as it is considered the height of folly to bring back cotton oil or some other American product in the form of olive oil and pay duty at the rate of twenty-five per cent., when the genuine article can be brought over on more advantageous terms, and mixed here if necessary; but the compounding should be done by consumers, and not by dealers under a misrepresentation. It is acknowledged that half of the supplies of olive oil consumed in the foreign markets is cotton oil, but that is a matter with which the American public has nothing to do, except so far as it relates to the olive crop each year, when a certain discount has to be made from the estimates furnished. There was a time when lard oil, corn oil and tallow oil were used to cheapen the cost of olive oil by admixture, but cotton oil has distanced all competitors in that line by improving quality as well as cheapening the product.

As usual at this time of the year, various tests are being announced for the guidance of innocent purchasers, and one in particular has attracted attention from its simplicity. It is this:

"If olive oil has a slightly greenish tint, it is not made out of something else."

If purchases were to be confined to green oil in order to get purity, there would be precious little of the product sold, as all the heavy trading is done in yellow oil from Spain, and Messina, Italy. The green oil comes principally from Naples, and is the result of pressing unripe olives, which fact is accepted as evidence of its inferiority to yellow grades, as the latter control fully ninety per cent. of the consumption.

Some new light has been thrown on the examination of olive oil for adulteration by a scientific gentleman connected with a local institute, who boldly declares that the standard tests utterly fail to indicate adulteration, and that the information in the "United States Dispensatory" upon this subject is entirely misleading and valueless. He endeavors to substantiate his serious charge against that publication by stating that he has repeatedly examined pure olive oils and not one complied with the tests given in the document named. He says there are many brands of pure olive oil in the market that are not composed of the first pressings of the olive only, but a mixture of the first with the second and even third pressings. The latter two are pure olive oils, but their reactions are entirely different as regards the nitric acid and Elaidin test, and might indicate to an inexperienced chemist the adulteration with lard oil or even cotton oil. The amount of pure olive oil, of first pressing only, is small in this market, whereas the amount produced by mixing the different pressings is very large, and this, he thinks, accounts in a measure for the fallacy that pure olive oil is almost unknown in the American market.

This is a subject which the compilers of the "Dispensatory" should give particular attention, now that the reliability of their information has been disputed, and in the next edition we may expect to find a new treatise on olive oil as the result of fresh investigation.

THE LARD REJECTIONS.

The lard market received a severe shaking up last week when several parcels of so called "prime" steam lard from Chicago, amounting to nearly 2,000 tierces, were rejected by purchasers in this market because they did not come up to the standard test. The fact that the lard committee promptly sustained the rejections made every trader suspicious of Chicago lard of a certain brand, and the manufacturer subsequently entered his protest, assigning as a reason for the action that a systematic effort was being made here to discourage the handling of his brand. This is certainly a mistake on his part, as the same difficulty was encountered in this market last season, when 1,700 tierces were rejected, but the facts were not made public. Since Chicago changed its standard in 1886, there has been more or less trouble in this market, where a higher grade is required, and there will be no end to the controversy until uniform rules are adopted in both cities. They are so constructed in Chicago that the very essential part of what makes good lard can be left out if the packer so chooses. There is no doubt it would be a great convenience for the two great markets to have one standard; but, as the chairman of the lard committee argues, is New York to lower its standard, or will Chicago go back to its old standard, and give equal proportions of the fat as it comes from the hogs, instead of keeping back the best and giving an extra share of the poor? The Chicago Exchange will have to mend its ways or keep its lard product out of New York.

A NEW USE FOR MENHADEN OIL.

The REPORTER, in last week's issue, gave the result of interesting experiments made by two chemists to determine the illuminating qualities of menhaden oil, and they gave such evident satisfaction that the persons making the tests are disposed to denominate the fish product as artificial petroleum. It was found that the luminous effect of menhaden is high, with a relatively low consumption, as compared to mineral oil. The comparatively new illuminant was obtained by redistillation, which reduced the original amount about sixty per cent., and this being purified by agitating successively with chemicals, brought around the desired result.

Menhaden oil has been consumed in miners' lamps for some time back, but only in combination form. Its admixture with mineral, animal or vegetable oils, was supposed to give better satisfaction than if employed alone for that purpose. The recent researches ought to have particular interest to the manufacturing trade, when it is possible to make a good burning fluid that can stand on its merits. Should petroleum ever become a scarce article of commerce," it might be argued that the product from the menhaden could assist to relieve the want in a small measure, but the quantity available for that object would be so infinitesimal compared to the necessities of consumption for illuminating purposes, that it is scarcely worth consideration. There are other important uses which require the entire yield of fish oil.

INTERESTING CINCHONA STATISTICS.

Cinchona bark statistics are at the present time extremely interesting reading to speculative operators and regular dealers in quinine, and the circular recently issued by an English firm is particularly apropos. This circular covers a period of five years and shows an apparent decrease of ten per cent, in the total supply, though the actual decrease is held to be much larger owing to the reduction in the average percentage of quinine in the bark. The decrease in the supply of bark will continue, it is believed, if for no other reason than that the present price per unit, although a quarter to a half penny above that of about a month ago, is unremunerative to growers.

A subject of quite as much interest to the general trade as these statistics of Ceylon bark is the statistical position of Java cinchona which is dismissed by our informant with the statement that "the supply of the latter has not increased as much as expected, but the average percentage has been about the same as the previous year, viz., four per cent." We have no ready access to statistics showing the receipts of Java bark at the distributing markets, but evidently they still play an important part in counteracting the effects of the undoubtedly diminishing supply of the East India varieties of cinchona.

Regarding the quinine situation the circular makes several statements of a cheering character to holders of the article who have shown their confidence in its future throughout the trying period when there seemed to be no bottom to the market. For instance, the writer's expressed belief that "stocks [of quinine] now are less than in the last few years," will find an echo in many hopeful minds. Of a similar import is the statement that "unless importers and weak quinine holders help them," the manufacturers "may find it difficult to buy bark at a price to make quinine at a profit," though the assertion immediately following, namely, that "published accounts of more than one large Continental factory show a loss on last year's working," robs the statement of much of its force. The foreign quinine manufacturers do not appear to have been governed to any extent of late years by considerations of cost of production, and there is no evidence as yet that such considerations are to control them in the future. If it were otherwise, that "European syndicate," of which we have heard so many rumors, would no doubt be an accomplished fact, or in a fair way to become one.

No criticism can be made of the assertion that "the consumption of quinine has increased, but too much has been manufactured of late years." It may be questioned, however, whether the production will, at the end of another year, show any marked diminution, without which the growth of consumption will have little effect to regulate market values.

There are evidences of improvement in the price of quinine, which, however, seem to be due more to the slight advance in the price of bark than to any intrinsic strength in the position of the salt. So long as the latter may show a rising tendency, higher prices for bark will be possible, thus showing that the one is as much dependent for support upon the other as the other is upon the one. How long this condition will prevail is a matter it would be fruitless to discuss, though probably one quinine manufacturers might, if they were disposed, settle with little delay. It is to be hoped, for the sake of those who have pinned their faith on quinine, that nothing will occur to interrupt the progress of events toward improvement.

HIGHER PRICES FOR POTATO STARCH.

As was generally anticipated some time ago, the market for potato starch shows an improvement as to values, and the situation is unusually firm, every indication pointing to a further appreciation of prices in the near future.

This situation of affairs has been brought about by the condition of the potato crop. In almost all of the producing districts much damage has been effected by the continued rains, thereby limiting the supply and causing farmers in those districts where no loss has been suffered, and there are few, to hold their product at higher figures. Instead of offering it to the starch makers, as is usually the case, these growers have in all instances sold the potatoes in the open market, as this course, in consequence of the lack of supplies from other sources, netted them a much more satisfactory return.

Owing to this fact, the starch manufacturers have had considerable difficulty in securing a supply of the raw material, and in all cases have been forced to pay an advance over the customary ruling rates.

It goes without saying that the foreign makers are watching our market with interest, and should prices reach a figure which would net them a profit they will undoubtedly enter the market and gain a foothold, but it is not likely that the American manufacturers will give them this opportunity if it can be avoided.

It is said that in some instances all the available supplies of starch for some time to come have already been contracted for, with a further demand reported which can not be satisfied at the moment.

THE COMMERCIAL CONGRESS.

Representatives from the Argentine Republic, Bolivia, Brazil, Colombia, Costa Rica, Guatemala, Mexico, Nicaragua, Peru aud Venezueja have arrived to participate in the deliberations of the congress proposed by the United States. These representatives are now the guests of the nation, and their entertainment until the date of the meeting of the Congress in the city of Washington is being conducted in a manner befitting the official character and dignity of our visitors, and with a view to impress upon them the vastness of our country and its resources. The plan of the entertainment is a fitting prelude to the earnest work before the Congress, and by the time the members are assembled they will have become thoroughly acquainted with each other and have a better understanding of the situation than could be gained by a month's formal deliberations. The ubiquitous reporter in his eager quest for "copy" has not failed of the opportunity to gather items from the visitors, and most of the delegates have already been called upon to give expression to their views on the objects to be accomplished by the Congress. From some of these interviews it appears that the chief obstructions to a closer commercial relationship between the United States and our South American neighbors is the difference in freight rates between American and European ports, the absence of a uniform monetary system, the absence of a satisfactory system of exchange, and the difference in the terms of credit granted by the manufacturers of Europe and the United States. Summing up all the hindrances, they resolve themselves into the potent fact that supplies are obtained cheaper from Europe than from the United States. Considering the geographical situation, this fact is at once surprising and highly mortifying. The best informed people of the South American States acknowledge the superiority of the machinery made by us, yet they are compelled to purchase in England or Germany, because it is supplied at smaller cost, and the purchaser rarely knows of any difference in quality. In the matter of manufactures the difference in cost is said to be the principal bar to our supplying the South American markets. While much good will doubtless result from this conference of the American nations, the congress can accomplish no direct change, as it is not an official legislative body. Its conclusions will be simply recommendatory, and on their conclusions the governments of the several countries will be called upon to make such regulations as will prove beneficial. Good results can be expected only by a removal of the barriers which at present exist, and these are largely within the means of our merchants and manufacturers, although the government can do much, and should promptly take the important initiative steps necessary.

The Treasury Department has ruled that a recent importation of naphthionate of soda was properly classified by the Collector at New York under the provision for all chemical compounds of salts not specially enumerated or provided for at 25 per cent. ad valorem. The appellants claimed that the merchandise was dutiable at 20 per cent. under the provision for products of coal tar; but the special report of the Appraiser represented that it was a combination of naphthionic acid produced from naphthaline (which is a product of coal tar) with soda, which is neither directly nor indirectly derivative of coal tar; and was therefore clearly a salt;

TRADE ITEMS.

"Whisky powder" is said to be one of the latest things out in England.

One of the most surprising features of the modern business world is the extensive use of cottonseed, formerly considered worthless.—Phila. *Record*.

Many New York capitalists having heavy investments in St. Louis are said to favor the latter city as the site for the World's Fair.

Mr. Daniel McKee, of S. McKee & Co., of Pittsburg, returned from Europe last Friday. He remained in this city but a few hours, leaving for home on an evening train.

A personal friend of Mr. Windom, the Secretary of the Treasury, says that the Secretary by no means considers his designation of the Bowling Green site for the Appraiser's Stores as final.

The expenditure of $50,000,000 by two English syndicates for the control of an extraordinary aggregate of industrial enterprises in the United States was completed in Chicago on Saturday.

Most of the foreign delegates to the International American Congress have reached the City of Washington and will have an informal conference with the delegates on the part of the United States at 11 o'clock to-day.

A sample of new summer yellow cotton oil, the first shown here this season, was exhibited on 'Change Monday. It was a product of the refinery of the Occidental Oil Company, New York, and was refined from Georgia crude.

Recent fertilizer charters are as follows: Schooners M. A. Bonsall, 436 tons, Elizabethport to Savannah; Arvesta, 480 tons, Orient, L. I., to Savannah; D. K. Baker, 493 tons, Barren Island to Charleston and back to New York.

Mr. N. M. Beckwith of New York died last week, aged 83 years. In 1835 he started business as an importer of spices, and in 1857 he went to Hong Kong as head and managing partner of the New York importing house of Russell & Co.

Any of our readers who contemplate buying or selling a drug store or who have collections or business of any kind they desire given attention, will do well to write to W. E. Donson, general broker, rooms 1 and 2 Kuhn's Building, Dayton, Ohio.

The exports of Austria-Hungarian soap amounted to 5,168 quintals in 1883, to 7,532 quintals in 1886 and 8,557 quintals in 1888. From this it will be seen that the exports are steadily increasing, while there has been a corresponding decline in the imports.

The Atlanta (Ga.) Perfumery Company intend to erect a factory and distillery this winter, for the manufacture of raw materials for perfumery, with a capacity of 200,000 pounds of flowers in the season. The plant is to be put up in the orange belt of Florida.

Mr. Thomas Ryan, United States minister to Mexico, has arrived in Washington, it is understood, for the purpose of conferring with Secretary Blaine and the President in regard to the lead ore question and ascertaining the policy to be pursued by the United States.

Last week fire was discovered in the building used as a wareroom and cooper shop of the Emery Candle Works at Ivorydale, near Cincinnati, and before the fire department reached the place the building was completely gutted. Estimated loss, $60,000; fully insured.

A company has been registered in London under the title of the Glamorgan Oil and Grease Company, limited, with a capital of £5,000, in £5 shares. The object of the company is to carry on business as tallow, grease and oil importers, manufacturers, dealers and merchants.

The Secretary of the Treasury has authorized the allowance of drawback equal to the amount of duty paid on the imported material used in the manufacture less the legal retention of 10 per cent. on exportation of bar lead manufactured by a New York firm from imported material.

Vermifuge continues to have a large sale, and seems to increase in popularity the longer it is on the market, according to the demand for B. L. Fahnestock's well known brand, which is manufactured by Mr. B. S. Fahnestock of Pittsburg. It has always been found of uniform quality and sells on its merits.

Dr. R. V. Pierce, of proprietary medicine fame, has announced the failure of the Big Bend Tunnel and Mining Company, with a loss to the stockholders of $2,000,000. He has always been president of the corporation. The field of unsuccessful operations was in Big Bend, Butte County, California, the capital stock being $20,000,000.

The departure of Mr. John McKesson, Jr., of McKesson & Robbins, on the La Gascogne last Saturday, was a surprise to many of his friends in the trade, as it was generally believed that he had abandoned the idea of a European trip. Nevertheless every one will wish him bon voyage on this his first vacation journey in two years or more. Mr. McKesson will remain abroad until early December devoting most of the time to rest and pleasure.

Mr. Solomon Adler, senior member of the firm of S. Adler & Sons, color manufacturers, has withdrawn from the co-partnership. Mr. Adler is 73 years of age, and he spent the greater part of his life with the above firm, which was established in 1836. Owing to his years he has not been actively engaged in business for some time, and the firm's extensive trade has been looked after by his three sons, Albert S., Willard F. and Dr. Leon N. Adler, who will now continue the business, under the firm name of S. Adler's Sons.

Mr. Frank L. Lavanburg of Messrs. Pfeiffer & Lavanburg, sailed for Europe by the steamer Trave on last Wednesday. His principal object in going abroad is to visit the Paris Exposition, and he expects to be absent from the city about five weeks. The firm has lately issued a substantial advertising novelty in the shape of a miniature cart rung, made of solid oak and painted with one of their specialities—"Oriole Vermilion." It is intended to be suspended from the wall and will undoubtedly attract much attention.

PETROLEUM NOTES.

An apparatus for refining and purifying oil which contains some novel features; has been patented by two Philadelphians. The patent is numbered 411,646, and was granted Sept. 14.

The natural gas people in Kentucky are busy boring wells, and from the amount of money still being expended it seems that there is a great deal of confidence felt in the future of the gas fields.

The famous Findlay Karg well is not producing a foot of gas, and the same is true of at least fifteen other wells belonging to the village of Findlay. The wells were worked too hard, and sucked in salt water.

The bark Thomas Keillor, which went ashore at Lewes, Del., during the storm, with a cargo of refined petroleum, came off last Friday with the assistance of the tugs North America and Hercules. Her own pumps keep her free.

The government requires 100,000 gallons of refined petroleum of 135° flash test in cases of two five gallon cans. Proposals should be sent to the Assistant Quartermaster General, U. S. Army at Jeffersonville, Ind., before the 15th inst.

The argument in the case of J. W. Wadsworth vs. A. D. Miller & Sons, asking for an injunction to restrain them from re-erecting their oil works in the Sixth ward, Allegheny, was heard by Judges Collier and Slagle last week, but the decision has not been rendered.

A number of factories at Beaver Falls, this State, ran short of gas last week, causing them much inconvenience. The Whitla Glass Works for one will return to coal and others threaten to do the same, unless the scarcity in the gas supply can be remedied at once.

J. C. White, a professor of geology, and an expert in natural gas, thinks the gas field near Pittsburg is nearly exhausted, and, unless the cost of piping can be reduced, gas from more distant fields will be costly. He thinks, though, that paper pipes may be the solution of the problem.

The Italian bark Il Salvatore, for Philadelphia, before reported ashore at Lewes, has been surveyed and condemned. Three thousand cases of oil have been discharged. Additional cargo was being saved and 6,000 cases of refined oil were landed at Philadelphia, September 24.

The Hermand Oil Company, a Scotch shale oil concern, is to erect a refinery with a capacity for refining 4,500,000 gallons of crude oil per annum. The decreasing stocks of American petroleum give those interested in the shale oil industry hope of fair profits in the future.

The monster Gibson gas well, at Upper Sandusky, O., which was just gotten under control the other day, is on fire, beyond control, it is said. Through the carelessness of a visitor, the gas escaping at the gate valve ignited, and in an instant the entire derrick was consumed.

The oil exchanges may change and rechange their rules as much as they please, but if the people don't want to speculate, no amount of legislation can make them do it. Thus sagely remarks the Oil City *Derrick*, and it about hits the nail on the head. Monkeying with the rules won't bring grist to the mill.

The East End Oil Co.'s No. 1, on lot 124 Alma is down 1,300 feet, and their No. 2 is down 400 feet. They are casing No. 2 to-day. On lot 141 No. 1 is down 700 feet. No. 2 is 200 feet deep, and will be cased on Saturday. They are at present building a rig on lot 124 and have another completed, also one on lot 141 building.

A London exchange says the Caspian petroleum industry is becoming such a big business that it needs a bank all to itself. The Caspian Bank has accordingly been formed at Moscow, with a capital of two and a half millions of roubles, and with a constitution confining its energies wholly to the petroleum trade.

At a recent meeting of the Mersey Docks and Harbor Board, Liverpool, it was proposed on the recommendation of the Committee of Works, to erect on the Parkhill estate in connection with the Herculaneum Branch Dock six installations or depots, at a cost of £30,000; with a capability for storing 19,000 tons of petroleum.

Favorable reports continue to be received from the gas wells at Sandy Creek, N. Y. The latest says that work at gas well No. 2 is progressing finely. Four very large veins have been struck already and prospects for well No. 4 are very flattering. The company has procured the franchise of the villages of Sandy Creek and Lacona.

Pontius, Rodgers & Co. have sold their property in Fairview township, consisting of 22 oil wells, with a diurnal production of 60 bbls., gas well and hardware store and machine shop at Hayesville, to S. G. Coffin, of Bradford, Pa.; consideration, $35,500. This property was acquired by the above firm from the Union Oil Company several years ago.

Notice of the dissolution of the Philadelphia firm of Crew, Levick & Co.'s, and of Crew, Levick & Co. Seaboard Oil Works is printed on another page. These firms have a world-wide reputation, and their many friends and patrons will be pleased to learn that the business will be continued by Mr. Lewis J. Levick, under the old firm name of Crew, Levick & Co.

The Empire Gas and Fuel Co. are drilling for gas in Alma. J. J. Dunn is bouncing the drill in his No. 1, Jacob Rauber, on lot 122, is still drilling. The New York and Pennsylvania Oil Co. is a new firm starting out in real earnest. On lot 126 they are nearing the sand in No. 1, and have another rig up on the same lot. On lot 116 they are drilling and building a rig.

The British ship Palgrave sailed from this port last week for Calcutta with a cargo consisting of 132,000 cases of petroleum. This is the largest cargo of case oil of which we have a record, and is probably the largest ever cleared from this or any other port. This is equivalent to a cargo of 26,400 barrels of the average capacity. The amount of crude represented is 41,900 barrels.

The beached ship Geestemunde, which came ashore at Atlantic City, about two weeks ago, broke in two with a loud crash last Wednesday morning, the three masts falling, ripping open the decks and setting her cargo of 2,500 empty oil barrels free, strewing them along the beach front for a mile. The stern of the vessel drifted down the beach about half a mile. The wreck was caused by the heavy rolling sea.

A despatch from London states that the reports of the sudden exhaustion of the Baku oil fields have been received in some quarters with dismay, but the greater portion of the dealers affect at least to consider them as stock jobbing rumors, and will not believe that deposits the oldest and hitherto most constant in history can be exhausted after such a comparatively short demand upon their resources.

The Anchor Oil Co.'s No. 3, on lot 2,690 Mt. Jewett, has struck the pay streak, and is reported to be flowing 30 bbls per day, though many believe that the well is doing more than that. The Parm Oil Co., lately owned by Armstrong, Boggs & Co., have a well doing over 20 bbls on the same lot. The two mentioned firms and F. W. Andrews have large tracts at Mt. Alton, and intend giving the field a thorough test. Mr. Andrews has 3,000 acres, Anchor Oil Co. 2,600 and Parm Oil Co. 200.

The following is the estimated capacity of the Toledo gas wells in Hancock county: Well No. 1, capacity 2,400,000, Thornburg tract; No. 2, 11,500,000, Barnd tract; No. 3, 9,400,000, Barnd tract; No. 4, 5,998,000, Barnd tract; No. 5, 8,500,000, Ware tract; No. 6, 7,250,000, Skinner tract; No. 7, 2,700,000, Thornburg tract; No. 8, 11,500,000, Trout tract; No. 9, 5,136,000, Shelly tract; No. 10, 6,000,000, Kagy tract; No. 11, 7,000,000, Kagy tract; No. 12, 15,000,000, Ware tract; No. 13, 3,000,000, Thornburg tract. Total capacity, 94,692,000.

A petition was circulated on the floor of the Consolidated Exchange last week, asking that members be allowed the privilege of selling their seats at any price they might choose to accept. There are 2,400 seats in the Exchange. A number of members wish to sell their seats, as they are not making any money at present, but by reason of the high figure at which they are compelled to hold them they find it impossible to get out. They have to wait till purchasers appear, and at the present time people looking for seats are few and far between.

The committee in charge of the gas well enterprise, at Chittenango, N. Y., has made a contract with Mr. Herman W. Hatch, of Richburg, same state, for the drilling of the well. Mr. Hatch is to be paid $2,000 for a 1,000 feet well, and $1 25 for every foot the committee decides to sink the well over 1,000 feet. The company buys all necessary pipe. The company reserves the right to stop drilling before reaching 1,000 feet if the gas or other valuable material is found, and in that case Mr. Hatch is to be paid the $2,000, but no money is to be paid until the well is completed.

A report has been received at the British Foreign Office from Mr. P. Stevens, British Vice-Consul at Batoum, stating that news had just been received in Batoum to the effect that eight new fountains had been discovered in the naptha-producing territory of that district, the combined output of which at the present rate of supply could approximately be estimated at 16,000 tons per diem, in consequence of which the price of crude oil at Baku had decreased from ½d to ¼d per gallon, and a further fall was expected.

Under date of July 20, Vice-Consul Wopalenski reports the arrival at Batavia of some thousand cases of Russian petroleum. The brand is the "Anchor." The leakage during the voyage was very little. The oil has a clear white color and gives a good light. The tins are of "Chester" model, provided with high top screws, like Devoe's tins. The wood cases are inferior in quality to the American cases. This petroleum has been sold to consumers at 4.20 florins per case (1 florin = 40.2 cents American), whilst Devoe's is quoted at 4.40. This makes the Russian oil 8 cents per case cheaper than the American.

Pagenstecher & Co., exporters of petroleum, this city, made an assignment last Thursday to Abraham B. deFrece without preference. The partners are Rudolph Pagenstecher and Edward Von Buren. Mr. Pagenstecher also filed an individual assignment to Mr. deFrece. Stern & Myers, attorneys for Pagenstecher & Co., said that the difficulty arose solely on account of a Mr. Brown, of Buffalo, not taking care of his obligations. The direct liabilities are between $30,000 and $40,000. The contingent liabilities are about $300,000 on accommodation acceptance and indorsements for Mr. Brown.

The "permit to use petroleum" for the steam yacht Meridas, issued on July 21, 1889, was returned for change of permit, which was refused upon the ground that the vessel has changed name and ownership, the new name being Swiftsure. The Department declines to issue new permits to the classof vessels referred to upon every change of ownership, as such changes may be, and possibly are, made several times during a single year, and such frequent changes would confuse the records of the Department. In the present case the permit already issued was less than a month old at the date of the application.

The Eastern Oil Company has been formed at St. John, N. B. Its organization meeting was held on Wednesday, 18th ult. Directors were elected as follows: Messrs. H. A. Hutchins and David S. Cowles, New York, and Messrs. Joseph Bullock, John F. Bullock, and Thos. H. Bullock, St John. At a subsequent meeting of the directors the officers chosen were: H. A. Hutchins, president; Joseph Bullock, vice-president; J. F. Bullock, secretary; and T. H. Bullock, treasurer. The company is organized to carry on the petroleum business in the Maritime Provinces.

A despatch has been received by the British Foreign Office from Mr. G. Strickland, acting Chief Secretary to the Government of Malta, trasmitting a copy of a report from the Collector of customs, respecting alterations in the customs tariff and regulations in the island of Malta. Ordinance No. IX of 1889 has been enacted by the governor, with the advice and consent of the Council of Government, by which dangerous petroleum is not allowed te be discharged and landed in Malta. The ordinance in question, which is framed on the lines of the English legislation, provides for the mode of testing petroleum and fixes the limit of the flashing point constituting safe petroleum under the said ordinance at 76° Fahrenheit, with a provision allowing a certain latitude in the case of the examination of a number of samples constituting a cargo.

For some years back there has been a great increase in the petroleum trade of Belfast and the north of Ireland. To meet the growing demand for safe storage it was decided to construct a petroleum tank on the same lines as that used in many large cities and towns of the United Kingdom. The dimensions of the tank are 35 feet in height by some 72 feet in diameter, and the holding capacity equal to 3,000 tons of oil, or 20,000 barrels. The tank has been constructed for the reception of Nobel's Russian petroleum. It is set on a "piled" foundation, consisting of 329 piles, each of which was driven to a depth of 42 feet, and over which a framework of timber has been placed, 12 by 7, the whole being bolted together. A floor of 4 by 3 rolled iron joices covers the timber. A stone wall, 4½ feet high, surrounds the oil tank and it is bounded also by a strong earthen embankment, the enclosed space sufficing to retain the oil in case of accident to the tank.

Particulars of the rich find of oil in the Northwest reached Ottawa in a letter from Major Allan Poyntz Patrick, Dominion Topographical surveyor, of Calgary. The letter says:—"For 11 weeks we have been prospecting among the mountains for coal-oil deposits. I am happy to say we have been eminently successful. We have located a considerable quantity of oil land, some on the eastern slope, and some on the British Columbia side. So soon as we felt perfectly certain as to the importance of our find, we had several samples assayed. The result gave 91 per cent. lubricating oil, 5 per cent. heavy oil, 1 per cent. water, and 3 per cent. foreign matter. This is the best oil ever discovered, and far ahead of the Pennsylvanian oil-fields. There is plenty of head, the flow being about 4,500 feet above the sea level, and the crude oil can be run off in pipes any distance. It is the greatest find ever known. All the oil lands are within easy distance of the railway." The letter further states that arrangements are being made for developing the find.

OBITUARY.

LYMAN KLAPP.

The sad announcement was made in this city on Saturday, of the unexpected death of Mr. Lyman Klapp, which occurred on the evening previous in Providence, R. I. He had been out driving, and when returning home suddenly expired from heart disease. Physicians were promptly called, but their services were of no avail, and the body was conveyed to the family residence, where he had been but a short time previous in apparently good health and spirits. The sad event has cast a gloom over the cotton oil trade in this city, as Mr. Klapp was held in the highest esteem, and he leaves a wide circle of warm personal friends here who admired him for his many excellent traits of character. Their heartfelt sorrow finds expression in recalling many incidents in his useful career which show the fine sense of honor possessed by him in meeting business obligations

The subject of our sketch was born in Westhampton, Mass., on July 16, 1827, his ancestors being the early Puritan settlers, known by the family name of Saxony, who figured in English provincial history to some extent. He did not object to being called a "Yankee" and would point with pride to the inventive genius of the so-called Yankees. His early education was limited to the studies usually pursued at a country public school, but that was not satisfactory to the ambitious youth and he concluded to master chemistry. By diligent application to that branch of study at home, he became a practical chemist before reaching his 20th year and the knowledge obtained from that one source was of incalculable value to him in after years.

In 1853 Mr. Klapp went on a voyage to the coast of Africa intending to penetrate the interior of the continent and perhaps meet Dr. Livingston, the explorer. But upon arriving at Cape Town he found it impossible to carry out his original intention on account of certain tribes being at war and not allowing intercourse with other nations. After making a study of the customs of the natives and obtaining information about African products, he returned to America and commenced experiments in the manufacture of oil from cottonseed. Not being satisfied with his knowledge in that direction, a trip was taken to England and France in the hope of learning something additional about refining processes. Suggestions received over there directed his inventive mind in a fresh channel, and as a result the cottonseed oil industry is indebted to him for the first seed hulling machine, and the first improved and satisfactory process for refining vegetable oils, which he brought out about three years before the war. At that time he located permanently in Providence, and the citizens had so much confidence in his ability that he had no difficulty in obtaining sufficient outside capital to establish the Union Oil Company for the utilization of his valuable discoveries. They have since proved a gold mine to the fortunate owners, as the very prosperous career of that company will demonstrate. Salad oils were made a specialty, and to-day they are competing with the finest olive oils in every market of the world. The successful operations of Mr. Klapp, who continued as president of the company named from the time of its inception until his death, attracted attention throughout the South and caused the industry to be developed. He started a branch in New Orleans under the management of Mr. John Kendall, who remains in that capacity, and the busy life of the former has always been devoted to advancing the interests of cotton oil in all the markets. He was a holder of cotton oil Trust certificates, and filled a vacancy as trustee for a few months. His frequent visits to New York were gladly welcomed, and when appearing on 'Change he was generally surrounded by admiring friends who solicited his opinion on trade matters and profited by them. Mr. Klapp's integrity was never questioned, and his wide acquaintance with business affairs made his services in demand as an arbitrator of disputes. The loss to the commercial community and the Masonic order cannot easily be replaced, as he was a man among few who possessed a combination of attractive qualities that made him a power.

FREDERICK HABIRSHAW.

A cable was received from Paris on Saturday, announcing the death of Mr. Frederick Habirshaw of New York, who had been identified with the mineral oil business for a quarter of a century, and was widely known in political, social, journalistic and real estate circles. The cause of his demise will not be known until a letter arrives giving particulars of the sad event.

Mr. Habirshaw was born in New Canaan, Conn., in 1841 and received a thorough collegiate education, but preferred to follow commercial pursuits instead of fitting himself for a professional life. His first business experience was with his uncle John Lockwood, who owned several storage warehouses on Newtown Creek, Brooklyn. While thus engaged, young Habirshaw became interested in petroleum developments and had a wide acquaintance with the early producers in Pennsylvania. The oil business had a peculiar attraction for him and he kept such a close watch on passing events and was so well informed in every branch of the trade, that he became recognized as authority on production and manufacturing. His library contained every work of importance treating on petroleum, and he could refer instantly to documents to confirm or deny statements made by experts. About 1868 he became manager of the Downer Kerosene Oil Company, and continued in that capacity until July 1, 1887. The office at the corner of Maiden Lane and Pearl street was the headquarters for many years of visiting members of the trade from other cities, and they always found a warm welcome from the genial host. He was a scientific scholar of a high order and took pleasure in publishing a book on microscopy. His presence was generally in demand at social entertainments, dinners to journalistic friends, important political gatherings, &c. as the number of his warm personal admirers was legion, because of his loyal friendship. After retiring from business in favor of Mr. F. O. Ketchum, he attended to his real estate interests in this city, which had been left him by a relative, and last year went abroad with his family to make Paris their permanent abode. His wife, who survives him, is the daughter of ex-Mayor Reid of Troy, N. Y. Dr. John Habirshaw, a practicing physician, and Prof. Wm. M. Habirshaw, the well known chemist, are brothers of the deceased gentleman. The latter was principally noted for his integrity, generous impulses and other admirable traits of character.

CORRESPONDENCE.

This column is always open for the expression of public opinion, but the REPORTER assumes no responsibility for the views expressed by any correspondent.

The Malt Extract Controversy.

HAMBURG, Aug. 21, 1889.

Editor, OIL, PAINT AND DRUG REPORTER:

In your number of June 15, 1887 you had the kindness to publish a statement of mine in which I declared that the so-called decision of the German Supreme Court in a case of Johann Hoff against me (which had been published in your paper in May, 1887) was a garbled one and falsified. Thereupon, you inserted in your number of June 22, a letter signed Eisner & Mendelson Co. in which they stated "that an exact copy of the decision of the Supreme Court at the German Empire was in their possession for your and anybody else's inspection." As I did not wish to abuse your kindness by repeating my former statement, and as in consequence of an affidavit made by Martin Hoff, one of the propietors of the firm of Johann Hoff, in which that person declared under oath that the same alleged decree of the Supreme Court of the German Empire which appeared in your journal and which was afterwards circulated largely by his firm and through his agents, the Eisner & Mendelson Company, was an exact copy and correct translation of the original decree. I had instituted proceedings in court against him for his false statement under oath. I did not think it proper to reply in your respectable paper to the above quoted statement of the Eisner & Mendelson Co., and waited until I could prove by decree of the court at Berlin that the so-called decision of the German Supreme Court, signed "Rueling, Judge," and sent you for publication by the Eisner & Mendelson Co., was fictitious. This I can prove now by the decree of the Royal Landgericht of Berlin, of June 13th, 1889, in my case against Martin and Hugo Hoff as proprietors of the firm Johann Hoff, which the Eisner & Mendelson Co. has been representing since the incorporation of this firm in 1880, and I have sent the decision of the Berlin court in original to my agents, Messrs. Tarrant & Co., duly verified by the United States Consul, and they will lay it before you with the request that you may be kind enough in consideration to the damage done to me and to my preparation by your publication, and in justice to the high position and principles of truth of your paper, to insert such extracts of the decision above mentioned, as will prove that your good selves and the American drug trade have been imposed upon. Thanking you in advance, I have the honor to remain, dear sir,

Yours very truly,
LEOPOLD HOFF.

NEW YORK, Sept. 30, 1889.

Editor: OIL, PAINT AND DRUG REPORTER:

The following is an extract from the decree of the Court, to which Mr. Leopold Hoff refers in his letter, from a cablegram sent us by Mr. Lang, the then U. S. Consul at Hamburg:

"HAMBURG, June 28, 1889.

"*Tarrant & Co., New York:*

"As requested, I send extract translated from certified decision of the Berlin Court Prussian Royal Landsgericht, rendered June 13, 1889, in the case of Leopold Hoff vs. 'Johann Hoff':

"Defendants admit that they have sent to Eisner & Mendelson the paper filed by their lawyer, Reuling, in the Hamburg Revision case. It is not to be doubted that defendants have done it in order that the paper should be used by their agents for advertising their preparation against plaintiff or Tarrant & Co.

"The defendants say the publication was only an error of their agents (Eisner & Mendelson Co.), but it is clear that the defendants have directly ordered their agents to publish their own paper as the decision of the Reichsgericht. According to the opinion of the Court this intention existed from the beginning. Max Martin Hoff admits having confirmed the statement that the published decision is that of Reichsgericht, but it is proved that he has sworn to it. By signing the amdavit he has acted carelessly in the highest degree if he has sworn without taking notice of the contents of the paper, and it must be taken that Max Martin Hoff swore to the paper with the intention of maintaining the publication that the same is the decision of the Reichsgericht,

"Decision as to the amount of damages is reserved.

"(Signed) LANG, U. S. Consul."

The full text of the decision certified by the clerk of court and the U. S. Consul at Berlin is now in our possession.

TARRANT & Co.

The United Glass Company.

SYRACUSE, N. Y., Sept. 30, 1889.

Editor OIL, PAINT AND DRUG REPORTER:

Yours of the 27th to me at Canastota is received this morning. Outside of this State, we have thus far arranged for the purchase of the glass works, as named below, and presume we shall buy more, but cannot say at this writing, as to how many or which.

Meadville Glass Works, Meadville, Pa.; Covington Glass Co., Covington, Pa.; Blossburg Glass Works, Blossburg, Pa.; Bowling Green Glass Works, at Bowling Green, O.; Findlay Glass Co., Findlay, O.; Ravenna Glass Works, Ravenna, O.; Zanesville Glass Works, Zanesville, O.; Wellsboro Glass Works, Wellsboro, Pa.

Truly yours,
O. E. FRAZEE.

Concerning the Lead Trust.

ST. LOUIS, September 24, 1889.

Editor OIL, PAINT AND DRUG REPORTER:

I am a holder of National Lead Trust certificates, having bought them on the open market for an investment.

I have had faith in the Trust, its safety and prospects, but lately I saw an article in some papers pointing out to the shareholders the danger to them in case that the directors or trustees should issue bonds secured by the properties of the Trust. Can that be done without the sanction of the shareholders?

You have in your paper often discussed the affairs of the Lead Trust, and perhaps you can say something on this point which would be of interest to thousands of shareholders, among which is

YOUR SUBSCRIBER.

[The National Lead Trust cannot, under its articles of agreement, issue bonds on its property. Certificates cannot be issued except for properties that have come into and have become part of the Trust.—ED. REPORTER.]

CHICAGO LETTER.

[Special correspondence of the OIL, PAINT AND DRUG REPORTER.]

CHICAGO, Sept. 28, 1889.

The market for linseed oil cannot be said to present any new features. Prices continue unchanged, raw oil still commanding 56c and boiled 59c, as during the last few weeks, although small parcels bring a little higher prices. If quotations in the seed market are to be accepted as a basis for oil, there is no special reason why any drop should have occurred since last Saturday, inasmuch as they show no material change. One year ago, however, seed was selling at $131½c, or 3½c above to-day's highest figures, while crushers were accepting (whether contentedly or not) ten cents per gallon less for their oil than they are willing to take at the present time. Just now some symptoms seem to point toward lower prices before long, but no one can tell precisely when.

The aggregate of the demand is very considerable, probably fully up to the average for the season, but it is still of a wholly consumptive character, buyers being timorous of purchasing in excess of their immediate requirements. To purchase futures would be an impossibility, even were there a disposition to ask for them, which has not as yet cropped out in any quarter in this vicinity. Crushers say that it is time enough to cross a bridge when it is reached, and consumers are of opinion that matters cannot reasonably be expected to be much worse than they are now.

An interesting item in this connection is the rumor that some of the Western mills are likely to remain shut down for some time to come. This does not excite much surprise, the presumable object being to regulate production and distribution, with a view to economizing cost. A more surprising story, which, however, lacks confirmation and cannot be traced to any authentic source, is afloat, which is to the effect that some sort of an arrangement has been entered into by which manufacturers of white lead are to become distributors of oil. It seems probable that this rumor had its origin in the offering of the latter by some parties who are also interested in corroding, from which circumstance some

very premature conclusions have been drawn.

So far as the sale of cake is concerned, this week's business has exceeded that of several weeks past; indeed, trade seems to have been growing up to its former proportions. Sales of nearly 4,500 tons are reported, there having been liberal foreign orders. About last week's prices have been maintained, the market having been $20 80@31, f. o. b. here. This week's direct importations have been 1,173,310 lbs., as against 1,459,541 lbs. last week. Since January 1st, exportations from Chicago have been 34,115,406 lbs., as against 48,296,779 lbs. during the corresponding period of 1888.

FLAXSEED.

Last week's shipments were not sufficient to reduce stocks, as compared with the week preceding. The official statement of the inspector shows 185,451 bushels in sight on last Monday morning, as against 158,057 the previous week, and 130,640 bushels on the corresponding date of 1888. Of the supply in elevators at the beginning of the week, all but 2,962 bushels were of No. 1. There have been inspected in since Saturday 366 cars of No. 1, 15 of rejected and 4 of no grade, making a total of 385 cars, as against 459 cars last week, of which 428 were No. 1, 21 rejected and 10 no grade. The week's inspections out foot up 49,999 bushels (190 cars) of No. 1, as against 259,179 bushels of No. 1 last week.

The secretary of the Board of Trade furnishes the following figures, showing the daily movement for the week:

	RECEIPTS.		SHIPMENTS.	
	1889.	1888.	1889.	1888.
Monday	46,942	47,101	8,390	14,079
Tuesday	32,313	29,281	21,495	7,043
Wednesday	44,499	35,073	8,429	15,245
Thursday	45,349	29,795	27,823	17,605
Friday	26,546	39,559	11,117	18,317
Saturday	29,934	32,057	7,601	48,222
Total	225,583	212,866	84,855	120,571
Last week	245,508	217,026	295,405	181,332

Futures have very closely followed the course of cash seed. The speculative market opened on Monday with September and year deliveries at about the same price as cash, a small quantity of the former bringing, in settlement, $1 23½, and the latter ranging from $1 23@1 24. October, after the decline in cash, sold at $1 23, or 2c lower than it was quotable at on Saturday, but subsequently a few lots brought $1 22¼@1 22½. Sales of December were made at $1 25@1 26, and of January at $1 27. A little May changed hands at $1 33, but later, $1 33⅛ was bid.

On Tuesday, light sales of September were made at $1 23@1 24, and October and year were quotable within the same range, and year was exchanged for December ar 1¼c premium for the latter, which, in a regular way, was about $1 26. May brought $1 33@1 34, closing at the outside.

On Wednesday, September sold at $1 24@1 25, October at $1 24½@1 25, and year at $1 25½, all closing at $1 25½. The general feeling was firmer. October was changed to November at 1c premium for the latter, and year to January at 3c difference. The only sales of May were at $1 34, but later in the session, $1 35 was bid.

On Thursday, the speculative market was quiet, but, on the whole, rather higher. September delivery brought $1 25½, and year was quotable at that, though without sales. October brought $1 25½@1 26, closing at the inside. December sold at $1 28 and January $1 29. May was decidedly active, forming the objective point of speculative sellers, sales running up to more than 40,000 bushels. Opening at $1 34 (below the last bid of the previous day), it sold down to $1 32½, but subsequently reacted to the opening price.

On Friday, light sales of October and year delivery were made early at $1 25, but later in the session $1 27 was bid for year, which was about the closing for that future. A small sale of May was made at $1 34½, but subsequently there was exhibited a nominal advance of 2c from Thursday's closing, this delivery being saleable at $1 36.

To-day the speculative market was more active, so far as inquiry was concerned, though sales were confined to a few lots of May, which brought $1 37½, or 1c higher than yesterday's best bid. September, October and year were about the same as cash, being nominally $1 27½@1 28 with December probably about 1c higher, or $1 28½@1 29.

The week's sales of futures aggregate—Of September, 6 cars and 24,000 bushels, as against 7 cars and 19,000 bushels last week; of October, 17 cars and 9,000 bushels, as against 25 cars and 26,000 bushels a week ago; of December, 5 cars and 15,000 bushels (an offset to 10,000 bushels of November last week); of year, 5 cars and 23,500 bushels, as against 1 car and 15,000 bushels; and of May, 53,500 bushels as against 60,000 bushels the week preceding.

In the market for cash seed, the weakness which characterized the latter half of last week was perceptible at the opening of business on Monday. The earliest sales of No. 1 were at $1 24, or 1c below Saturday's closing, and it ranged down to $1 23 at the close, at which figures most of the trading was done. There were freer offerings but not enough buyers to maintain prices. Lower grades were nominal, with rejected about 2c and no grade 4@6c below No. 1. On Tuesday the range was the same, but reversed, No. 1 opening at $1 23 and closing at $1 24, some cars being wanted to make up round lots for delivery. Rejected sold at $1 21½@1 22, and no grade at $1 18. Trading was a little more active on Wednesday, and the general tendency was toward higher prices. No. 1 opened at $1 24 but sold chiefly at $1 24½, and the final sales were at $1 25. Rejected sold at $1 21½@1 24, and no grade was nominally 3@6c below No. 1. On Thursday No. 1 opened at $1 25½, but most of the sales were at $1 26. Trading was very limited, however, and the market closed at about the opening figures. Rejected sold at $1 23, and no grade was nominally about $1 17@1 20. Yesterday there was not much offered, and it was all taken, the market opening at $1 26 and most of the sales being made early. Later, however, No. 1 advanced to $1 27, and there were a few sales at that Bag lots were slightly discounted, and low grades entirely nominal. To-day there were small offerings and a firmer market. No. 1 ranged from $1 27@1 28, with the latest and largest sales at the outside. Rejected was nominally 2@3c and no grade 3@5c below No. 1, but transactions were confined entirely to the contract grade.

As may be seen from the foregoing paragraph, prices during the week have ranged between $1 23@1 28. Last week's range was $1 25@1 29, and that of the same week last year, $1 30@1 34. Sales on the floor of 'Change during the week have been, so far as reported, 166 cars and 216 bags of No. 1, as against 175 cars and 28 bags last week; of rejected, 7 cars, as against 7 cars a week ago; and of no grade 2 cars, as against 4 the week previous.

On the whole the cash demand has been fair, but not very sharp, although after the first break, receivers enjoyed a fair selling market. The outward movement during the week shows a material falling off. Some of the elevator men have been buying rather freely, and a portion of late arrivals are remaining in store, which has caused a slight accumulation.

OILS.

Cotton oil has displayed a fair amount of activity during the week, trading having been rather more than usually brisk for the season. While summer yellow has not been in particularly urgent request, there has been a fair business in winter white. In fact these two varieties appear to have virtually changed places so far as demand is concerned. Quotations are altogether for old oil, sellers as a rule considering it premature to name prices for this season's crop in the present unsettled condition of the market. There are parties, however, who are soliciting bids for new oil which is said to be en route. No sales are as yet reported. For oil of last season's make quotations continue to be as follows: Summer yellow 43@45c, with some indication of a willingness to shade nominal prices in some quarters; good miner's oil can be had at 48c, while very choice winter white commands 52c. In this connection it is worth while to remark that the general sentiment of the Chicago trade seems to be that the existing export demand is likely to result in higher prices earlier in the season than had at first been anticipated.

Lard oil continues as active as last week. There is a steady movement, and a firmer feeling can be observed which has resulted in slightly higher prices for both extra and No. 1. The former is quotable to-day at 49@50c, and the latter at 36@38c. The slight advance is attributed in part to the improvemement in inquiry, but chiefly to the rise in lard. The demand is well divided between the two grades, being excellent for each.

This week's exportations of oleo have been about 4,500 tierces, as against 4,856 tierces last week, and 4 625 tiorces the week before. These figures show the foreign movement to be steady and nearly uniform. So far as activity is concerned, the Holland market has more than quadrupled as compared with last week. Since last Saturday sales have been cabled here from Rotterdam aggregating about 5,300 tierces as against some 1,250 tierces during the six business days preceding, notwithstanding this improvement in demand, prices continue substantially unchanged. There is, however, a marked disproportion between the market values of the poorer grades and of extra makes. Advices were received here yesterday that the unloading of the steamship Rotterdam had been seriously delayed through the operation of the strike. Local stocks are extremely light, and the approach of the butterine season has very considerably increased the home demand for oleo.

PAINTS.

The volume of business for the week just closed has been of a character more satisfactory to dealers than has been the case for several weeks heretofore. The trade has been fully up to the standard of last year, and jobbers anticipate a fair autumn's business. The inquiry is almost wholly from manufacturers, retailers ordering only in assorted lots to replenish depleted stocks.

The market, as a whole, shows little of interest. White lead continues in about the usual demand, and corroders have been fairly busy. The general list is unchanged, but may be called firm at present rates, which, however, are generally considered rather low.

The week has been marked by the failure of Carney & McLogan, dealers in paints, oils, etc., of this city, who conducted stores on Wabash avenue and on State street. The firm made an assignment on Thursday last to Le Roy Church. The liabilities are about $10,000, and it is said that the assets will probably reach that figure.

DRUGS.

The leading jobbing houses report an improved business for the week. The accession has been from the increased demand from Western points, which is just now looming up into its customary proportions at this season. City business continues substantially unchanged as to volume.

Opium remains very firm, but as yet there has been no advance in prices. Jobbers are billing at $3 35, but the market for that description of sales is very firm at those figures. Powdered is still held at $4 65@4 75, and morphine also is unchanged, although as regards the latter there seems to be a very general expectation of a rather speedy upward movement.

Quinine is easier. Agents of foreign houses are now asking 27@27½c, and second hands are jobbing at 29@30c, although in both instances the inside figures probably most nearly represent the market. Most of the jobbers replenished their sufficiently at the commencement of the advance last month, and are now in a position to meet, at fairly remunerative prices the existing demand which continues to be wholly consumptive in character.

The general list can hardly be called firm, and most of the changes in prices to be noted are downward in tendency, although chiefly in the less important articles. Refined borax, however, continues very firm at last week's quotations, 9c, while powdered remains at 8½c. These prices are for round lots; in a jobbing way, refined in barrels commands 9¾c, and smaller quantities 12@14c. For salicylic acid there is a good demand, induced, it is surmised, in part, at least, by the advent of new cider, although the market is, if anything, a trifle weaker, to-day's jobbing price being $1 40. Probably for the same cause mustard seed, both black and white, are in excellent request, jobbing at 6@8c. American saffron is a shade lower, being easy at 30c. Bicarbonate of soda is unusually low, a circumstance which is attributed here to a disagreement among manufacturers. Some brands are selling here as low as 2⅞c in barrels and 3c in kegs.

A new corporation for the importation and manufacture of medicine and kindred articles has been formed here this week, with a capital stock of $50,000. It is to be known as the Holland Importing Company, and its incorporators are John H. Hartog, John Gilman and D. Benson.

Prof. Hurtt, of "Pond's Extract" celebrity, has been paying the local trade his annual visit this week. He announces his intention of adopting the rebate plan hereafter.

CHEMICALS AND DYESTUFFS.

Dealers in chemicals report another fairly satisfactory week. The volume of busines has been good and prices are tending higher.

Carbonated soda ash is quiet but exceedingly firm on a basis of $1 47½ for 60%. The quietude of the market is, of course, attributable to the tardiness of the glass furnaces in resuming operations. Brokers note with satisfaction the movement on foot to place the window glass business on a more satisfactory basis, and brokers are disposed to anticipate a better market for certain kinds of chemicals in consequence. Caustic ash is not moving in any degree of activity, but is nominally $1 55@1 60, with infrequent sales.

Caustic soda is higher, $2 47½ being the lowest price named for forward sales. There is considerable inquiry for goods to arrive, and a fair number of sales are reported. Agents and brokers are still talking of higher prices. Sales continue to be of 70% and 74%, but on the basis of the figures given for 60%.

Refined alkali exhibits no special change. To arrive is in good request, and this circumstance, in connection with a reported scarcity of supply, tends to maintain prices, which are firm all around. Forty-eight per cent is held at $1 55@1 62½, with 58% not so active but on the basis of $1 47½@1 50.

Domestic sal soda is, as it has been for several weeks past, an article to be slaughtered. The same cutting of prices to induce trade, to which reference has been repeatedly made, is still going on, and the market—that is, the actual market—remains at 78@88c.

Bleaching powder is not moving very rapidly. Nominal quotations continue the same as a week ago, $1 85@1 90, but the feeling may be called, if anything, a shade less firm, which is attributed to advices received from foreign and eastern markets.

Acids are in normal demand, but prices have undergone no change. Local manufacturers are, if possible, more outspoken than ever in their determination to enter no combination and not to advance prices until they see more ample justification for it than at present.

Blue vitriol is still offered at 5½c for car lots, but there is practically no demand, except the normal jobbing inquiry, and the market remains lifeless and uninteresting.

In the other articles on the general list no change can be noted from a week ago. Alum, cream tartar and tartaric acid are all moving freely at former quotations.

The dye market shows nothing novel. The usual volume of business has followed its course through the accustomed channels. Dealers declare that they have no reason to complain. Anilines are moving steadily through jobbers, but present no interesting feature. Gambier is very firm, and there is some talk of higher prices. Logwood is ruling very firm for stick wood, while prices for extracts continue to favor buyers.

CALUMET.

MISCELLANEOUS.

The Wholesale Druggists' Convention.

Mr. Wm. A. Schmidt, of Indianapolis, Chairman of the Committee on Arrangements and Entertainment for the N.W.D.A., has selected the new Denison Hotel in that city for the headquarters. He has also sent out the following circular:

"Your Committee of Arrangements and Entertainment begs leave to inform you that by the authority of Mr. Geo. A. Kelly, President, the fifteenth annual convention of our Association will be held in Indianapolis on Tuesday, October 22. As it is very important that the committee should know as nearly as possible how many will be in attendance, I respectfully request that you fill out the enclosed card and return it to me not later than October 10. You will please state if you will be accompanied by ladies. Your committee hopes that a large number of ladies will attend, as every effort will be made to provide for their comfort and entertainment."

A Circular by the Cotton Oil Trust.

The following circular has been issued by the American Cotton Oil Trust, dated September 30 and signed by Mr. W. P. Anderson, the secretary: "Notice is hereby given that the annual meeting of the holders of the American Cotton Oil certificates will be held at the office of the trustees on Friday, Nov. 1, 1889, at twelve o'clock, noon. Notice is also given that, pursuant to the provisions of the Trust and conforming to the regulations of the New York Stock Exchange, the trustees will, at said meeting, propose and recommend amendments to the provisions of the Trust to the following effect, viz:

That no change or increase in the total amount of the certificates of the Trust be at any time made without at least 30 days' previous notice thereof being given by the trustees to the certificate holders, the registrar of the certificates, and the New York Stock Exchange.

There has been no increase of certificates during the past year, nor is any contemplated. Proxies, to be valid, must be dated within sixty days of the meeting at which they are to be used. The transfer books will be closed from Tuesday, October 15th, at 3 p. m., until Monday, November 4, 1889."

It is said that papers have been prepared for making application to list the securities on the Stock Exchange.

A "Wild-West" Journalistic Comedy.

The house organ known as the *National Druggist* has received considerable free advertizing during the past few days, on account of a "stand and deliver" scene which was enacted at the publication headquarters in St. Louis last week. According to the *Globe-Democrat* a literally "forced sale" of twenty-five shares of stock in the paper was made to Mr. J. Clifford Richardson. Just before the transaction the market was "bulled" with a 38-caliber Smith & Wesson to par, or $20 per share, in a way which formed a very dramatic scene that just missed a tragedy. It seems that when Mr. O. F. Oberbeck undertook its management he found the house organ burdened with debts amounting to $4,500, and for some reason it was desired to terminate his administration in a manner not satisfactory to Mr. Oberbeck, hence the amusing episode, with the latter gentleman in the title role. At the election of officers he was "frozen out" and representatives of a wholesale grocery house selected to act as figure heads in the ostensible management of the publication. Mr. Oberbeck was unable to sell his 25 shares of stock in the paper, as nobody wanted it. He called on Mr. Richardson, and he tells the story of what happened:

"I came down to ask you what to do with this stock."

"That doesn't concern me," was the reply.

"But, I have built up your paper, and you have practically robbed me of my reward. What can I do with this stock?"

"I don't care what you do with it."

"I want to sell you this stock, it is worth nothing to me."

"I don't want your stock. To buy it would be like throwing money in the sewer."

"How much will you give me for this stock?" and Mr. Oberbeck spread the twenty-five shares out in front of Mr. Richardson. The latter pushed it aside and replied, slightly annoyed, "I tell you I don't want it."

"I want you to buy that stock."

"I won't, I tell you."

Coolly taking off his watch and handing it to a bystander, while Mr. Richardson looked askance, Mr. Oberbeck noticed the chances, and then taking out his revolver, said:

"Mr. Richardson, I will give you one minute to write out a check for $500 and take that stock."

"Wait—wait—wait till I see Moffitt," replied the victim.

"Hurry up and write that check—I'm in a hurry, hurry, hurry."

The check was drawn. Mr. Oberbeck cashed it from the American National Bank, and indorsed the stock over.

An effort was made to see Mr. Richardson but he could not be found. He has legal redress, as Mr. Oberbeck overstepped the law in the method adopted to sell his stock, but it is hardly probable that any action will be taken

against him as he followed what has always been alleged to be the characteristic course of the paper towards its victims who refused to advertise and did not believe in supporting blackmailing tactics. Notwithstanding the well conceived plans to cover the identity of the parties controlling the *National Druggist*, the members of the trade were well aware, it is said, that the first object of the paper was to advance the interests of a certain drug jobbing house, the welfare of advertisers and subscribers being entirely of a secondary consideration.

The REPORTER could cite other incidents of a somewhat similar character which are alleged to have occurred between the "powers that be" and those whom they wished to influence to become supporters of the sheet, but as in this instance, the result was disastrous to the would-be bull-dozers who were the rightful owners of the weak apology for a trade paper. The late fracas is said to have had its origin in the emphatic disapproval by the drug trade of such a procedure and was followed by an important curtailment of business, which resulted of course in a depleted treasury and dissatisfied stockholders.

Strict Business Regulations.

Under the laws governing corporations adopted by the Wyoming Constitutional Convention, no corporation organized under the laws of Wyoming or any other jurisdiction shall be permitted to do business in the State until it shall have accepted the constitution of Wyoming and filed such acceptance in accordance with the laws thereof. No law shall be enacted limiting the amount of damages to be recovered from corporatious for causing the death of any employe or any person. Any agreement or contract with any employe waiving any right to recover damages for causing the death or injury of any employe shall be void. Regarding trusts the law provides that there shall be no consolidation or combinations of corporations of any kind whatever to prevent competition, to control or influence production,or prices thereof,or in any other manner to interfere with the public good and general welfare.

Revision of the Patent Laws Wanted.

In his recent report, the Commissioner of Patents says: "It is, I believe, generally conceded that legislation is needed amendatory of the Revised Statutes relating to patents. Some of the provisions which should be altered are section 4885, relating to the date of patents; section 4887, relating to the duration of patents for inventions previously patented in a foreign country, and section 4936, relating to reimbursement of moneys paid by mistake into the Treasury. Other sections could be amended to the advantage of the patent syrem. More specific suggestions will be made upon this subject in my report to Congress. The opinion is indeed gaining graund that a revision of the patent act would be of advantage not only to the inventor but to the public generally."

Interesting to Olive Oil Buyers.

Prof. Thomas B. Stillman, of Stevens' Institute, Hoboken, N. J., has made some discoveries in relation to olive oil, which he describes in a communication to a contemporary: The article is called for on the grounds that what at one time, a few years ago, were considered standard tests for the examination of olive oil now utterly fail to indicate the adulteration, and this is especially true of the tests formerly used for distinguishing cottonseed oil when mixed with the product of the olive. Prof. Stillman goes even so far as to state that some of the tests given in the late edition of the "United States Dispensatory" for the identification of a pure olive oil are entirely misleading and valueless. He finds that no one test has been found sufficient for this purpose, and he has made a series of tests, five in number, for which he claims that by a careful comparison of them any adulteration of an olive oil should be indicated, and also the nature of the oil added. The five tests are specific gravity, rise of temperature when the oil is treated with concentrated sulphuric acid, the elaidin test, iodine absorption and nitric acid test. Two of these tests, the third and fourth, he says, require considerable chemical experience for their proper treatment, and it will be found that the subject is not always one of simplicity and ease. He gives a simple test, which any intelligent person can make, and which he claims rarely fails to show the presence of lard or tallow oil, also corn oil, in olive oil. It is as follows: Agitate in a test tube three parts of the oil under examination with three parts of chloroform, then add two parts of an equal mixture of strong nitric and sulphuric acids. Repeat the agitation a few times for ten minutes, then set aside for an hour. Olive oil composed of the different pressings will react the same as of the first pressing, maintaining a faint, yellowish green color—and it is the only color test of which he knows in which the reactions are alike—for these two different classes of olive oil. When lard oil or tallow oil are present they produce a brownish-red coloration which is very characteristic. Cotton-seed oil produces a rich red color, and corn oil a deep lake color.

New Business Enterprises.

The Pioneer Chemical Co. has been incorporated to manufacture medicines in Augusta, Ky.

J. T. Wyatt & Co. will shortly erect a distillery for making sassafras and pennyroyal oil, in Salisbury, N. C.

Joseph B. Davis will erect a plant for utilizing the ammoniacal liquor from the City Gas Works in Richmond, Va.

The North American Trading Company has been established at Chicago, to deol in general merchandise; capital stock, $250,000; incorporators, V. C. Gridley, D. H. Fletcher, John H. Halpenn.

The Crystal Rock Salt Mining Co. has been organized at Chicago to do do a general mining and madufacturing business in salt; capital stock, $1,500,000; incorporators, T. D. Hull, Frank Lane, Isadore Friedman.

D. W. R. Read and others are organizing the Lynchburg, Va., Drug Mills to manufacture paint, drugs, chemicals, tobacco flavors, barytes, etc. A building has been secured. Capital paid in will be about $50,000.

The Ernenwein Paint Manufacturing Co. has been incorporated by Frederick Ernenwein, Frederick Hepp and Albert Lowenthal, of New York, and W. Ernenwein and J. S. Thatcher, of Dallas, to manufacture paint in Dallas, Texas. The capital stock is $10,000.

Articles of incorporation have been filed for a large chemical manufactory at Woodbridge, N. J. It will be known as the Liebig Manufacturing Compony, and will have a capital of $100,000. The principal stockholders are Gustav Liebig and John F. Gibbons of Baltimore; and Paul Babcock, of Montclair. The offices will be in Newark.

Advices from Kansas City state that the Chick-Short Method Smelting and Refining Company has been granted a charter by the Secretary of State of Kansas. The Company is organized with $15,000,000 capital, and will build one of the largest refineries in the United States. The plant will be erected in Kansas City, Kansas. The directors of the Company are David J. Brewer, Thos. Storms and Nelson A. Cres, of Leavenworth; G. H. Flick of San Francisco; John H. Knell, Wm. H. Whiteside and Marvin R. King, of Kansas City.

Of Interest to Dealers in Chemicals.

The Ivanhoe Paper Mill, Paterson, N. J., is expected to start up on book paper early in October.

The Frontenac Paper Company, of Dexter, N. Y., expects to start up its new mill by January 1, 1890. The mill is built entirely on the ground floor and there is not a flight of stairs in the building.

The Crown Paper Company will build a mill of 12 tons daily capacity at Oregon City, Ore.

C. B. Hewitt & Co., whose paper mills were damaged by the recent floods in New Jersey, have purchased property in Long Island City, N. Y., and will erect new buildings.

An eastern syndicate has obtained from Waldemer Thilmany the right to manufacture in the Fox River Valley, Wis., sulphite fiber by the Mitscherlict process. The franchise carries with it the right of manufacturing for the counties of Outagamie, Winnebago, Calumet and Brown, covering the entire Fox River Valley. The syndicate will commence at once the construction of buildings at Appleton, Wis., and it is expected the plant will be running next year. The plant will cost about $300,000 and will employ over a hundred men.

Luminous Paints.

An unknown authority communicates the following information, but we cannot vouch for its accuracy:

Until now the commercial manufacture of luminous paint has been confined to England, where a single factory turns out a small supply at a price of about $3 a pound. The enormous cost seems to have prevented the use of the paint except as a curiosity, and it is fortunate that a certain firm named Mahren, at Triesch, in Austria, has found means to produce it, and place it on the market at fifty cents a pound, or about one-sixth of the English price. Even at fifty cents a pound, a substance composed of roasted oyster shell and sulphur might, we should suppose, be manufactured at a good profit, but at that price it is likely to come into extensive use. Whenever it can absorb light during the day it will give it forth at night, and it is said that a railway car in England, which has had its ceilings painted with it, was so brilliantly illuminated that one could see to read a newspaper in it during the darkest night, without other light, With all due allowance for the enthusiasm of early experimenters, there is no doubt that cars with their ceilings so painted would be pleasant to ride in, whether one could really see to read in them at night or not; and for making key-holes, stairways and sign boards luminous the paint would be invaluable. Its application to stairways is a particularly obvious one, and the Austrian manufacturers furnish a kind of wall paper on which the paint can be used to better advantage than on the bare plastering. The paper, which is of a leathery texture, is first treated with lime water, and then primed with a composition furnished by the same firm. After this is dry two thin coats of the luminous paint are applied, and the whole may then be varnished.

An Extensive Shipping Scheme.

A correspondent writing from Birmingham, Ala., states that railroad men there are investigating a sensational scheme that has been started by the International Transportation Company, a new institution at Nashville. The idea is to revolutionize the shipping system of Europe and America. It is proposed that arrangements be perfected with all, or a majority, of the shipping merchants in the United States to yield to the company the sole privilege of routing competive freight to and from competing points over the various lines and water ways. The shippers are made the company's agents. The company has sent the different railroads a circular letter asking for their terms on various classes of freight. The business will be conducted over the lines from which the best compensation is derived. Not less than three per cent. per hundred pounds for all packages and pound freights will be charged. These rates, or drayage charges as they are called, apply to each line over which the shipments are routed. Railroad men at Birmingham, the correspondent states, are inclined to regard the project as an impossible scheme. Considerable correspondence is being carried on concerning the project and what it will terminate in cannot be surmised.

Chicago Paint, Oil and Varnish Club.

[Special correspondence of the OIL, PAINT AND DRUG REPORTER.]

CHICAGO, Sept. 28.

A special meeting of the Chicago Paint, Oil and Varnish Club was convened at the Sherman House Club Room, in that city, on the afternoon of Thursday, the 26th instant, at 11 P. M. The object of the meeting was to transact the business not taken up at the last regular meeting—the listening to the reports of the secretary and treasurer, and the annual election of officers.

In the absence of the president, Mr. John Alston, the chair was occupied by Mr. C. H. Cutler, the vice-president, who announced that the first thing in the order of regular business was the reading of the report of the secretary.

The secretary, Mr. Person, then presented his annual report, which was substantially as follows:—

Since the meeting of a year ago, it may not be out of place to make allusion to our monthly conferences. Reference to the secretary's record, shows that, at a recent meeting of the club, there was evolved a local bureau for the mutual confidence in the exchange of information, the benefits of which are best appreciated by its stockholders. The primary intention or aim of creating an alliance with other representative business localities to regulate the system of trade discounts and time bills has, up to this, been unproductive of results. The importance of this great trade disturbance requires your organized action for eliminating the abuses. The consideration of rebates to jobbers in the sale of white lead is a matter familiar to members. Whether you fail in the hope that more equitable arrangements may be conceded is an open question of trust. The committee appointed to arrange for a more remunerative basis in the selling of turpentine, completed its labors presumably to the satisfaction of dealers. In the matters of freight classification, there continues to exist irregularities, with which you must manifest some concern. The able chairman of your committee having the matter in charge, has reported from time to time such progress as to warrant the belief that some of the inconsistent features identified with railroad freight classifications and tariffs may be amended more in harmony with justice to those members effected. In anticipation of a higher cost for ingredients that enter into the composition of unadulterated strictly first-class paint, it was proper that this club should debate and resolve to advance the price of their respective products. To what extent the revised price list has been respected, can best be computed on your balance sheet. Other matters of a nature not wholly incidental to your welfare have been discussed, and, while no positive legislation has been derived therefrom; renewed consideration of the same may ultimately prove beneficial. In this connection, it is well to refer to your action in requesting the Executive committe to come forward previous to the monthly meeting for the purpose of presentation to members of matters for deliberation. This is an innovation that should be encouraged, for, if observed it must result in making the club meetings more interesting and profitable. It is well to bear in mind the existance of a national association, and the benefits that are to be derived by giving it our hearty support. Matters affecting trade interest, apparently of local importance, may become of a national or general consequence, and require the support of other communities. The next annual meeting of the National Association will be held at Detroit in January next, delegates to which from this club are yet to be selected. Some 47 members were enrolled during the past year, and this should justify a larger attendance at our meetings. It is a matter of regret that so much indifference should exist. The perpetuity of the club must largely depend upon the interest manifested in it by its members. A necessity for a club of this nature in Chicago exists, provided it receives the hearty support of the trade. If not, it must lapse into a feeble institution. Your attention is called to Art. 10 of the By-Laws, which prescribes a penalty for nan-payment of dues, as well as the failure to attend meetings. The enforcement of that rule might result in some good. The financial condition of the treasury is a solvent one, there being a comfortable surplus to our credit. This is undoubtedly the result of wise economy on the part of those having the control of the club funds.

The report was, on motion, accepted and ordered to be placed on file.

The treasurer, Mr. Rosenthal, of A. Ansbacher & Co., then submitted his report for the fiscal year, which was likewise ordered to be filed.

The Chair announced that the next order of business was the election of officers for the coming year, and inquired whether the Secretary had received any communication from the President. Mr. Alston, relative to his willingness to accept a nomination for another term.

The Secretary stated that he had been verbally asked by Mr. Alston to request the club to excuse him from serving as a president for a third year.

Mr. Rosenthal placed in nomination Mr. C. H. Cutler, of C. T. Raynolds & Co., the present vice-president.

Mr. Cutler returned thanks for the honor tendered, but said that for reasons, which he need not state, he must peremptorily decline to serve. He asked leave to suggest the name of Mr.George H. Vrooman,the Secretary of the National Paint and Varnish Association, as that of a gentleman in every way qualified to assume the leadership of the club.

Mr. Vrooman requested to be excused from accepting the honor, but at the repeatedly expressed wish of all those present finally withdrew his declination. The election then proceeded, with the following result:

Mr. George H. Vrooman was unanimously elected president of the club, and Mr. E. H. Haines, vice president.

The secretary and treasurer were unanimously re-elected.

Messrs. Cutler, Wadsworth and Weare were chosen a board of directors, without dissent.

The executive committee was authorized to appoint a committee on membership and also a committee on entertainment.

A vote of thanks was tendered the retiring officers of the club.

The president stated that a meeting of the executive committe would be held prior to the next regular meeting.

A communication was received from the Mayor regretting his inability to be present at the last regular meeting, and stating that he would be pleased to meet the members of the club at the future time.

The meeting then adjourned, subject to the call of the President. CALUMET.

Showered with Vitriol.

The Haverstraw express over the New Jersey and New York Railroad that leaves Jersey City at 6:05 P. M. was wrecked at Lodi Junction, N. J. last week. A trainman of the branch of the New York, and Susquehanna. Western Railroad ran three cars loaded with oil of vitriol on a siding and left the switch open. The express, running forty miles an hour, was turned off the main track and ran into the freight cars, telescoping the first one. The engine went through it and pushed the wrecked cars along the switch and over 500 feet of the main track. The engineer never left his post but reversed his engine at the risk of his life to save the 200 passengers. Fireman William Young jumped,and was badly burned by the vitriol that was scattered in a shower in every direction. He is in the Hackensack Hospital in a dying condition. Not a passenger was hurt. The loss is estimated at $5,000

Boston Notes.

[Special correspondence of the OIL, PAINT AND DRUG REPORTER.]

BOSTON, Sept. 28, 1889.

In paints, the market is undergoing a temporary check caused by the very unfavorable weather for the last two days; it had just recovered from similar conditions caused by the storm a week ago. The prospect is for a good fall trade. At this writing linseed oil is quoted at 58@58½c, with the market very firm, and it looks as though this would be the case until well into October; as supplies are scarce and the demand good. Buyers who have been holding back in expectation of an easier market are sending in orders, realizing that the market is against them.

Turpentine rules strong, and the tendency is still upward. During the past few weeks the turpentine market has gone a little higher each week, and another advance is looked for sometime during the week to come.

There is no change in white lead. Jobbers are earnestly looking forward to the time when the trust will make some change in its manner of dealing with the trade, and to the time when they will abandon the rule requir

ing the prepayment of freight by the jobber which is a great nuisance to the latter.

Gambier has ruled firm during the past week at 8c, from store. Ex-vessel to arrive, now about due, is quoted at 7¾@7¼c. There have been no shipments from London as yet since the strikes began. There are no No. 1 cubes in the market, and for No. 2 cubes 10c is asked.

Sumac is higher, Sicily being now quoted at $68@72. The market in Sicily is higher, and prices there, owing to the short crop, are firm, and this feeling is expected to prevail during the season. Sicily sumac, to arrive, is quoted at $67 50@70. On Virginia sumac, rates have been made this week at $50@55, on spot. There is practically none to arrive in the immediate future.

Cutch is slow of sale, and though prices are unchanged in Boston, yet, in New York lower prices are noted. Purchases could be made there at 4⅞c, it is said.

There is reported to be no sago flour to speak of in the market. There has been a small arrival of 600 bags, ex-steamer Norseman from Liverpool this week, but this lot is all sold, at 2¾c, or higher.

There have been no sales of menhaden oil to speak of during the past week from first hands. Trade is slow, but prices are steady. Good merchantable or prime menhaden oil is quoted here at 22@23c for round lots, with jobbing prices for manufactured as follows: Light pressed, in jobbing lots, 27@28c; bleached winter, 34@35c; extra bleached, 37c. The Boston market has taken comparatively little menhaden oil thus far this season. Cod oil is scarce and very little is coming forward on account of the low prices which naturally shut out the English oil, the Canadian producers finding Montreal and other Canadian cities a more profitable market. Quotations for cod oils are: Labrador 35c, and Newfoundland 35@36c. A strong position and a better demand for the pork products make manufacturers of lard oil firmer in their views, though there is no improvement to be noted in prices, which are now: Western extra, 55@57c; eastern prime, 60@65c; extra No. 1, 52@53c; No. 1, 45@46c; No. 2, 42@43c. Saponified is firm at 38½c for carload lots, and 41c for smaller lots. The sperm oil market is quiet with round lots quoted as follows: Crude, 71@72c; natural winter 76@78c., bleached winter 82@83c. Elaine is having a slow sale at 36c for large lots and 39c for small.

Olive oil is firm at 72c for case oils, and 73@75c for Italian oil in barrels. The steamer Norseman, from Liverpool this week, brought 100 cases and 30 boxes olive oil to Brown Bros. & Co. Castor oil is quiet at 15¼c for cases and 14c for barrels. Degras is firm at 3¼@3½c; neatsfoot is steady at: prime, 65@70c; extra No. 1, 60@65c; No. 1, 55@60c. The cotton oil market is fairly active, with the market quoted here for jobbing and small lots at: crude, 40@45c; prime summer yellow, 50@52c; cooking, 54@55c; winter yellow, 57@58c; winter white, 59c. Cocoanut oil is firm at 6¼@6½c. Palm oil is steady at 4¾@5¼c. Paraffine oils have a steady request at 12c for 28 gravity, and at 15@16c for 25 gravity.

Essential oils are without change, except in the case of pennroyal, which is holding at $1 00, which is about 10 or 15c advance over previous prices. Wintergreen is firm, and is held at $1 90@1 95, and the outlook is for higher prices.

Stocks of bleach on spot are very light, and nothing is offering in Liverpool for early October shipments. This looks as though dealers werk in danger of running short of a supply, and as if consumers would have to depend upon what surplus stocks they have been fortunate enough to secure—which is supposed to be small. There have been some large sales made here during the week. Mills in Maine are reported to be taking more bleach than heretofore. Quotations are: $1 70@1 75, according to brand. Sal ammonia is in a steady position. Cream of tartar is unchanged in price and the market quiet. But an advance in the price of the article is looked for by the first of the year. It is now nearer the price of foreign markets than it has been for many years. At present, to import cream of tartar and pay the duty, it would cost about 30 cents, it is alleged

Shellac has been sold in quite a large way. Prices are strong, and about 1c higher all round. Stocks are getting reduced, as consumers have been buying freely.

The drug trade is quiet, with little change is week, opium alone showing an advance of bout 25@30c, owing, it is said, to recent heavy purchases that have been made in Smyrna by the Dutch government.

Dyewoods are without material change. The logwood market is steady, and the movement quiet. Arrivals of logwood this week have been 800 tons. Dyestuffs have undergone no change during the week, and the demand was light. The steamer Norseman, this week, rought six bags cochineal. The arrivals of emlock bark continue very free, but there very little demand at unchanged prices.

The tallow market is unsettled, in sympathy with foreign markets. The steamer Catalonia this week brought five casks, and the Santiago 17 casks of grease from Liverpool.

At the meeting of the Paint and Oil Club on Saturday, October 12, the Credit Bureau will present a report. President Charles Richardson has in mind the National Association, which will soon hold its meeting, and he is anxious that the members of the various paint and oil clubs throughout the country shall present to the association some topic of interest that will furnish material for profitable discussion.

The appointment of Mr. C. F. Gates, of Chicago, as Chairman of the committee on transportation of the National Association, gives satisfaction.

Mr. Geo. O. Gibbs, of Mason, Chapin & Co., is traveling in Maine.

Mr. A. D. Rathborne, Secretary of the Anti-Kalsomine Company, of Grand Rapids, Mich., is paying his first visit to Boston this week, as the guest of Messrs. Charles Richardson & Co

ALLAN ERIC.

About Natural Gas.

The *Financial and Mining Record* prints the following, under the heading, "Financial Aspect of Natural Gas," written by C. Harrison:

Although the natural gas industry is in its infancy, being but seven years of age in Pittsburg, the pioneer city, it has had an important effect on commercial enterprise and economic conditions. Throughout the whole area of natural gas production, from Western Pennsylvania to the fields of Indiana, manufacturing has been stimulated, the production of manufactured commodities and the consumption of raw materials vastly increased, the effect of which is not limited to the gas producing territory, but is diffused throughout the nation.

The commercial phases of the industry, the advantages arising from the use of such fuel to manufacturers, the comfort and convenience added to the homes of the people, the advancement in material wealth, additional employment to labor, and various other attributes of a substantial nature have been widely discussed and are generally understood.

But the purely financial considerations attending this new industry and enterprise have as yet taken form so little removed from the speculative and experimental as to make definite conclusions nearly impossible. Financiers have nevertheless had considerable experience with the stocks of corporations engaged in the industry; bonds issued in furtherance of such enterprises are occasionally offered and order is so gradually emerging from chaos that indications of permanent truth and reliable principles are making their appearance.

The first feature presenting itself to financial consideration is that the industry from its inception has been in the hands of companies or corporations. Individuals have leased territory and produced gas, and they will probably continue to do so; but in all States wherein natural gas has been utilized as fuel, the distribution has been made to consumers by incorporated companies. One leading reason why this must continue to be the case is that the places of production are at considerable distances from the places of consumption; the intervening territory is occupied and owned by many persons. In order to obtain rights of way for the pipes through which gas can be conveyed, the power of eminent domain is frequently essential, and this is conferred on corporations exclusively. There is no probability that natural gas can ever be successfully handled by private individuals.

A large number of corporations have accordingly been organized to conduct this business; their stocks have been on the public markets and their values have become to some extent known through the quotations obtained from trading in them. The market has varied widely, the same stocks fluctuating between 135 per cent. of their par value and 32 per cent., often without material difference in their dividend earning capacity, in the regularity of dividend payment, or any other known reason than speculative causes. At present, to find a natural gas stock on the market worth par is a decided exception, notwithstanding the fact that several have been paying dividends from 9 to 12 per cent. per annum regularly for a term of years and are still in a position to continue them.

All natural gas stocks are speculative and subjected to so many influences against which no human foresight can afford protection, that however valuable they may be as immediate profit payers, they have never risen to the dignity of legitimate investments, and there is no prospect that they ever will. They cannot for many years at least, from the fact that the sources of supply are beneath the earth where the human eye can never penetrate, and unlike many other mining operations, the extent of the "vein" or "lode" cannot be even surmised, much less surveyed.

That the wells from which supply is obtained are exhaustible, howsoever great may have been their output or uniform their pressure for years, has become a demonstrated fact. No inexhaustible natural gas well has yet been discovered, or one which has not suffered a diminution of pressure, as vehemently as this fact was denied only a few months ago. Increasing demand upon productiveness has led to more rapid exhaustion, and the rate at which companies have been compelled to seek new territory has been accelerated.

All the great companies a few years ago were supposed to be in possession of territory practically inexhaustible, but there is scarcely a great company in existence after five years of experience that is not seeking new territory on account of diminishing supply from those fields which promised to be permanent.

That several of the companies have been successful in finding new and prolific territory is matter for congratulation to stockholders, but such extensions involve expenditure not contemplated in the earlier days of the enterprise. It is evident that the wells cannot be brought to the pipes. The pipes must be extended to the wells. Every new well drilled and every foot of pipe laid to make its production available (if, indeed, there be any production) causes an additional outlay of capital which would not have been the case had the wells been originally inexhaustible, as contended. New territory adds still more to the disbursements of the corporation, whether it be obtained in fee or on royalties, and the extensions of the pipe system is generally much greater to new territory than from line to well in territory already in possession.

It therefore becomes a matter of interest in some cases as to whether these extensions of the pipe lines of companies to new wells in the old or in new territory, and the wells themselves, which have been found to be imperatively necessary to the successful operation of the plant, should be charged to the stock or the expense account. It is in dispute and undecided, but in cases of leased lines it makes a vast difference where a division of profits is made the basis of rental.

Natural gas may be inexhaustible in the aggregate; the supply may be all that is claimed for it by the most sanguine of those engaged in the industry, but the extension of lines and additional expense on account of the exhaustion of wells in all known fields is a truth too well established to be successfully refuted.

How far this may have to be continued with what rapidity it may be required to supply the demand in the future cannot be known. This very element of uncertainty will always keep the financial aspects of the industry purely speculative and render it impossible to attain such a settled condition as to make a legitimate investment, or the stocks of the companies such securities as a court would ever order trust funds to be invested in, whatever present profits or prospective gains of particular companies may be.

In an economic point of view, it is evident that the cost of production of natural gas must increase as long as wells are exhaustible, territory become more scarce and more uncertain, the plants of companies larger and more expensive to maintain and operate. At the same time the price to the consumer cannot be arbitrarily advanced to meet this increased cost of production because there has been no exhaustion of coal fields nor of means of transportation. As much solid fuel of all kinds is within as ready reach of consumers as was the case before natural gas was introduced as fuel, besides which new competitors have appeared in the market. The prolific oil fields of Ohio particularly, have been utilized for fuel purposes, since natural gas was introduced, and makes a highly successful competitor where conditions are favorable to its supply and gas has to be piped a long distance. Besides oil as fuel, manufactured fuel gasses are being devised and have already supplanted coal in some localities. They are claimed to present nearly as desirable economic features as natural gas itself. Competition must prevent any great advance in the price of natural gas.

With constantly an inevitably increasing cost of production and no opportunity for a corresponding cost to the consumer, what is to prevent ultimate bankruptcy to every natural gas company? Clearly, nothing but the economies rendered possible by experience in distribution, or increasing its effectiveness in use. By the knowledge which comes from experience alone can they be saved. The number of gas companies already rendered insolvent, sold out by the sheriff or absorbed by other more prosperous companies, is a practical suggestion that it takes something more than gas producing territory, a pipe line and customers to make a successful natural gas plant. Not a company went into operation without all these, but the number of financial wrecks is very large for the length of time the industry has been in progress and the supposed profit there is in the business.

The great problem is whether the advantages of skill and information derived from long experience in the production and distribution of natural gas will be able to keep pace with the continued cost of production. Whether it be possible or not, the conclusion is unavoidable, that the longer the natural gas industry is continued the more hazardous it becomes for inexperienced persons to embark in it.

The petroleum industry was long recognized as being the most uncertain and speculative of mining operations, but natural gas is even more speculative than petroleum. All the uncertainty in production of oil is present in the production of natural gas, but in oil the uncertainty ends. Petroleum has a market throughout the world. Gas has no market except at the end of the pipe. Petroleum having been procured, a variety of ways of transportation are possible, if in barrels it becomes too expensive, the tank car is available; if the tank car costs too much, the pipe line can be laid down, or the reverse order may be resorted to in extremity, but in handling natural gas but one means of transportation is possible. In natural gas the place of consumption is fixed. No further can it go to get a better price. It has all the disadvantages and uncertainties of oil, while in points of conveyance and market, has none of the advantages. In 30 years petroleum has never ceased to be a speculative commodity, the stocks of the companies engaged in the enterprise equally so. Naturally gas companies must be even more of a speculative nature for a longer period, if they continue for that length of time.

Besides their stocks, the bonds of corporations engaged in the natural gas business have a degree of financial interest. The amounts thus far issued have been small, and all issues have been under such conditions as to present little from which satisfactory estimates can be formed of the value of such securities. So far as known there has been no uniformity in the issues of bonds by various corporations and the conditions under which they have been made were so entirely dissimilar, each to the other, that general principles can be relied on in approximating in the value of any particular class.

The value of a bond depends principally: 1st, on its validity; 2d, on the credit of the corporation issuing it; 3d, the market value of the collateral or security on tangible property pledged for its redemption; 4th, the rate of interest it bears and the length of time it has to run.

Natural gas companies organized and doing business in western Pennsylvania, have issued bonds, but they have been placed through private agencies on private terms so that very little is publicly known of the value that has been placed upon them.

It may be said, however, that the validity has never been questioned seriously; the companies issuing them have been regular dividend-paying institutions as a rule, hence of good credit. Each company have mortgaged a plant costing far more than the face value of the bonds to secure the payment, and so long as there is a supply of gas the collateral is probably unquestionable.

But from the exhaustibility of the wells from which supplies are obtained, the comparative worthlessness of a pipe line having nothing to fill it with, the constantly increasing expenditures of established companies more particularly pointed out above, the general rule that the longer a bond has to run the more valuable it is, does not necessarily apply to natural gas securities.

Besides these considerations, the risks of the business are so great and its speculative character so pronounced, a high rate of interest becomes essential to indemnify against the contingencies of the investment. The securities issued by a corporation partake to some extent at least, of the speculative character of the business in which it is engaged.

In Northwestern Ohio, widely different conditions exist from those in Western Pennsylvania. There, municipalities have engaged in the natural gas business, issued bonds to enable them to construct and operate natural gas plants, and, like other municipal securities are accompanied by no tangible collateral whatever, but are based entirely on the public credit. In the way of bond issuing, these afford the most interesting financial considerations in connection with the natural industry.

The exhaustibility of supply and constant search for new territory, applies there as elsewhere. The business risks and expenses of a municipality are at least as great as those of a business corporation and are liable to be much more. Natural gas trustees are generally gentlemen of success in their vocations, but without practical knowledge of the details of production or distribution of natural gas.

Practical affairs inevitably become more risky under inexperienced management than under the direction of experienced men. Bonds if issued by a municipality under such management and having nothing but public credit behind them cannot be so desirable as those issued by business corporations, whose affairs are conducted by persons of experience in every department, and which give collateral on their tangible plants as well as the security of experience and actually invested capital.

Municipalities invest no capital in their natural gas plants. The capital is borrowed on bonds sold. They have been uniformly induced by a class of persons who desire to "boom the town," who desire to induce manufacturers to locate in the city or its suburbs under the proclaimed advantages of "free gas" or "cheap, fuel" at least, provided largely at public expense. To borrow money wherewith to erect a charitable institution, or one to be conducted without profit, cannot enhance the value of bonds upon which such capital is borrowed.

Experiment has shown in a number of cases the effect of municipalities entering upon the natural gas business. Besides the creation of a bonded indebtedness for the construction of the plant and setting it in operation, the expense of operating has caused a deficit to be supplied by taxation. At first, prices to consumers are reduced so that business corporations are forced out of business and the price is then advanced often to twice the rates

charged by business concerns. Excitement has run riot for a time, values of real estate advanced and tracts have been unloaded at high prices on favorable terms to taking it back on the mortgage. Manufacturers have been led to locate there merely to find the gilded promises but empty bubbles from the natural cause of failure to supply. Cities claiming to have "gas enough for the whole world" a couple of years ago, were chilly last winter for want of fuel, and councils are called upon for further appropriations for funds to put the plants in order for the coming winter.

In some cases the bonding has been done without authority of law, in others requirements of law have been complied with in appearance, but by evasions of the most questionable character. Any subterfuge to reach the end of issuing the bonds and marketing them appears to have been winked at under the enthusiasm of the moment and the popular clamor. It is only recently that the great question of the legality of such proceedings has been called seriously into question.

The whole subject has been brought up in the form of legal proceedings in the city of Toledo, where it is proposed to construct and operate a natural gas plant by municipality. The litigations promise to be the most interesting and important that have arisen since the famous Dartmouth college cases, involving as they do, considerations of vital importance to the business interests of corporations in municipalities in all parts of the nation.

In January, 1889, the Legislature of Ohio, passed an act entitled "an act to authorize cities of the Third Grade of the First Class to borrow money and issue bonds therefor, for the purpose of procuring territory, and right of way, sinking wells for natural gas, purchasing wells and natural gas works, purchasing and laying pipes and supplying such city with natural gas for public and private consumption."

Under the provisions of this act an election was held April 1, 1889, and a majority of the voters voted in favor of the bonding, a board of trustees were appointed and organized, some of the bonds were issued and $675,000 more are about to be.

A suit was brought in the United States Circuit Court by Jame W. Fellows and others of the cities of New York, Brooklyn and Chicago, all being taxpayers in the city of Toledo, against the city, its officers and natural gas trustees, alleging that the act under which these bonds are proposed to be issued is unconstitutional, for a number of reasons, but those of chief interest are that this act authorizes the taking of private property, for other than public use; that it impairs the obligation of contracts: and that it authorizes the mingling of municipal funds with those of other persons and applies public money to private enterprise or purpose.

The leading question is whether the supplying of natural gas is a "public use" within the meaning of the law. There can be no question that the taking by taxation of the property of a citizen is a taking of private property, and, therefore, can be taken for public use only. What constitutes a public use? If the furnishing of fuel be a public duty or use, municipalities may be permitted to borrow money, issue bonds therefor, and purchase coal lands, provide for transportation and distribution of coal to the citizens, conduct a coal business; but without profit, and tax all other coal dealers to supply its deficiencies arising from the lack of paying expenses otherwise. If it be a public use to provide fuel for heat in winter why not ice to keep the people cool in summer? If it be a public use to supply the people with fuel why not with clothing shelter and food? The broad question is presented whether a city has a right to provide agencies by taxation upon its people including its merchants and business people to provide consumers with the necessities or comforts of life at a cost or for nothing if it pleases; crowd the business interests of all merchants and people making supplies out of trade and tax them for their successful competitor. The question involves a principal that grows the more it is reflected upon. It has been held in many States that taxes cannot be imposed to aid persons suffering from a great fire or flood, either by providing them with money, food, seed or otherwise. If under such conditions of disaster public money scannot be applied to uses, by what process of reasoning can individuals be entitled like to aid for fuel in the absence of disaster.

But the citizens of Toledo are supplied with natural gas fuel through the agency of two companies already existing, and which have been in operation three years. The companies were chartered by the same authority that assumes to authorize the issue of these bonds. They have been acting under ordinances passed by the same city which now proposes to issue the bonds for the purpose of depriving them of profits. These ordinances provide inter alia that the city may fix the maximum price at which natural gas may be sold to the citizens and has acted on the authority. These companies have been charging no more than the price fixed by the city itself. The charter and ordinances being a contract betwe n the parties in this issue of bonds and setting up a plant which will act as a confiscation of profits at least a violation of that contract? If not, the property of no business corporation is safe in any municipality; the protection of business is broken down.

The considerations involved are too extended to follow. They are merely introduced here to show that in this case the litigation is in good faith and is likely to be extended during a long period and that it involves the first principle of value, the validity of the bonds themselves until the final decision of the court of highest resort it cannot be known whether the bonds issued by the city of Toledo under this act have any validity or value whatever.

The preliminary injunction was refused, but this does not affect the question on the final determidation of the suit. The case has not been tried. Should the gas of the city become exhausted before the bonds become due, and there are experts who predict this outcome, the desire on the part of the people to repudiate the bonds will be as great as it is to issue them, and to market them somewhere else than at home.

Local capitalists there refused to take the bonds first issued under this act reciting that they were for "natural gas purposes" and even after the form of the bonds had been changed to "general purposes" they found a defect in the ordinance and refused to take the bonds after their offer had been accepted, hence the re-advertisement of the securities. The absolute refusal to touch them so long as they recited the real purpose for which they were issued, is of itself a highly suggestive circumstance, and one fully in keeping with the practices of other cities in that part of the country, to make this class of bonds show something different on their face from what they were issued for.

The bonds have been issued of so many neighboring municipalities under taint of fraud as to give suspicion to the whole. The experiment of furnishing natural gas economically by a municipality having proved a failure in many instances; all bonds having been issued pursuant to momentary excitement and popular clamor induced by professional boomers of real estate, which all experience shows runs its course within a short time, and leaves depression in its stead; the question of the real value of municipal bonds issued for natural gas purposes would seem to be answered.

Further, if this act be declared unconstitutional on the grounds stated, it will invalidate nearly all the bonds issued for like purposes by all municipalities in the State; a result greatly to be desired by the taxpayers in those municipalities in which the gas has already failed, and during the pendency of the act on every person who buys a City of Toledo bond issued under the authority of the above recited act, buys a lawsuit.

The prudent investor will bear in mind also that the Supreme Court of that State has decided, that "a taxpayer may maintain his action to restrain the collection of a tax levied for the payment of bonds issued under an unconstitutional act, and that the fact that the bonds were issued, and the money raised from the sale was expended by trustees with the knowledge of the plaintiff in the construction of a plant in the town which enhanced the value of property therein, including that of the plaintiff, and that the plaintiff did not begin an action to restrain the issue of the bonds or prosecution of the work, is not sufficient to stop the plaintiff from maintaining such action to restrain the enforcement of the tax. [38 O. S. 515].

Whether the city does or does not repudiate these bonds therefore at maturity, and whatever the result of the present action may be, the taxpayer not joined may still have his remedy against the taxation after it is levied to meet them.

Such bonds cannot be considered as having any considerable financial value until the legislations are decided and the constitutionality of the act finally passed upon.

Strophanthus Plants.*

Having my attention called in 1878 to the value of strophanthus, I obtained, through a gentleman at Mozombique, all the seeds that could be found, but very few germinated. I atterwards received a small quantity from the African Lakes Company and from Mr. Buchanan. These seeds were at that time called "Kombe," and I planted without any selection some "saucers" of these seeds, the result being that from this handful of "Kombe" seeds (i. e., the green hairy seed) different kinds of plants were raised as can be seen.

In the year 1886 Mr. Buchanan sent home some roots of strophanthus, one of these germinated and produced a plant from which the leaves shown herewith were taken. No plant, except one other that I have raised from seed, has yielded so large a leaf as this: the seed producing this plant was known as Kombe, and it had no peculiarity about it. In the year 1888 some seed was brought to this country which was quite white, called by Blondel "Wooly of Zambesi." I have several times planted this seed but have only obtained one plant which has quite a small leaf.

Early in 1888 the Niger Company at last roused up to the advantage of obtaining strophanthus, and brought to this country seeds which I classified as strophanthus "Hispidus," they being plentifully hispid, and of a foxy-red color they were found to yield an excellent tincture giving good results, equal, if not superior, to what was known as "Kombe" tincture.

*Read before the British Pharmaceutical Conference by T. Christy, F. L. S. &c.

These plants have all a large woolly leaf (see specimen) and promise to develop still larger foliage very much resembling the strophanthus sent home by Buchanan. Prof. Husemann of Gottingen kindly made for me a comparative analysis between the "Kombe," the "Hispidus," and the "Minor," or so-called "Niger" seeds, and he reported to me as follows:—

Both seeds of strophanthus niger received from you belong to the series of cardiac drugs. Both seeds in their action upon the heart are hardly to be distinguished from the African species of strophanthus commonly known as "Kombe." I made experiments with the alcoholic extract after eliminating fatty matters with ether. The seeds first sent (the "minor" variety) yielded 10 per cent., and the second (the "Hispidus") yielded about 12½ per cent. of extract. The latter, by reason of a larger percentage of chlorophyll, is greener than the former, which is of a dark brown color. Of both extracts one centigram stopped the heart's action in a frog within a few minutes; no specially direct action was noticeable upon the veins, showing in this respect that the two extracts above mentioned do not differ in any way from that obtained from the "Kombe," and, furthermore, no narcotic action was found.

There was another variety of seed which Dr. Blondel named strophanthus minor, owing to its being very small in size, blunt at one end, and having a spike at the other, a good name for this would have been "turtle" strophanthus.

In 1888 Dr. Blondel came to this country and worked up the sections of the plants growing in my greenhouses at Sydenham, and he visited the Natural History Museum, South Kensington, where Mr. Carruthers brought out the whole of their herbarium collection of strophanthus flowers and foliage. He then went with me to Kew; Dr. Oliver kindly gave up considerable time to us and went through the whole series of his specimens. He then saw clearly that what we had called strophanthus "Kombe" was really only a variety of the "Hispidus" or I may say "mother species."

In 1889, a small supply of glabrous strophanthus or Gaboon seeds arrived in Paris, but unfortunately it amounted to only a few pounds, with some of the pods. This established the fact that the pod of the glabrous or Gaboon was of large size, smooth externally and very red in appearance, thus agreeing with an unnamed specimen in my own collection. It was also proved that this glabrous or Gaboon yielded a crystallizable alkaloid, and further that this same seed was that employed by Professors Hardy, Gallois and Polaillon in their earliest researches, and who had found out and declared that the strophanthus yielded a crystallizable alkaloid. Owing to the Kombe only having reached Europe in commercial quantities during the past few years, no serious atttempt could be made to isolate a crystallizable principle.

In 1887 I received a shipment of some 150 lbs. of the seed of the glaborous or Gaboon variety. I have got one plant from some thousands of the seeds planted; the leaf of this plant now shown is glaborous, strong and pointed.

All the workers with strophanthus, both in Paris and in Germany, find that this glabrous strophanthus of Gaboon crystallizes with the greatest ease, and specimens were shown by me at a meeting of the Pharmaceutical Society early this year and exist in their museum. This variety, it will be seen has leaves somewhat similar to some of the specimens of "Kombe." Mr. Holmes no doubt will show at the meeting specimens of the flower of the glabrous variety of Gaboon which have been sent to him, but he has not up to the present time obtained living plants which have been authentically grown from seed in this country. In conclusion, I would remark that anyone looking at the seeds sent home originally as strophanthus "Kombe." cannot but be surprised at the different foliage of the plants raised from what appeared to be seed of one variety only, as shown in the first series exhibited.

At the Therapeutical Congress in Paris, in August, this year, there was a bowl of strophanthus seeds shown which I thought very beautiful and bold, but upon expressing this opinion to Dr. Blondel he picked out for me several seeds of a turtle shape as before referred to, and asked me to bite them; I did so, and found they had hardly any bittterness. He said that it was very singular that this shape of seed, not only in this variety but in others such as the "minor," seemed to contain very little active principle.

As far as the chemist is concerned many are now working with medical men at the therapeutics of this interesting drug by mixing the strophanthus seed with other drugs, a combination of strophanthus and alstonia constricta having been found to be valuable against obesity. In the Paris Congress Dr Dujardin Beaumetz clearly put forward as the result of his experience with the tincture of strophanthus that he obtained entirely a different actiou when he employed strophanthine, and he strongly advised medical men to keep to the tincture as giving the best results.

NOTICES.

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Co-Partnership Notice.

NEW YORK, Oct. 1st, 1889.

Mr. Solomon Adler, of the firm of S. Adler & Sons, has withdrawn from the co-partnership, and the business will be continued by the other partners under the firm-name of

"S. ADLER'S SONS."

SOLOMON ADLER,
ALBERT S. ADLER,
MILLARD F. ADLER,
LEON N. ADLER.

Co-Partnership Notice.

PHILADELPHIA, Oct. 1, 1889.

The co-partnership heretofore existing between J. Lewis Crew and Lewis J. Levick, under the firm name of Crew, Levick & Co., has been dissolved; Lewis J. Levick having purchased the interest of J. Lewis Crew in the said firm. J. Lewis Crew is the only person authorized to receive payments for all debts due to, to pay all debts due by, and generally to liquidate the business of the said firm, which will be done at 113 Arch Street, Philadelphia.

J. LEWIS CREW,
LEWIS J. LEVICK.

PHILADELPHIA, Oct. 1, 1889.

The co-partnership heretofore existing between J. Lewis Crew, Lewis J. Levick and Theodore F. Jenkins, under the firm name of Crew, Levick & Co., Seaboard Oil Works, has been dissolved; Lewis J. Levick having purchased the interests of J. Lewis Crew and Theodore F. Jenkins in the said firm. J. Lewis Crew is the only person authorized to receive payments for all debts due to, to pay all debts due by, and generally to liquidate the business of the said firm which will be done at 113 Arch Street, Philadelphia.

J. LEWIS CREW,
LEWIS J. LEVICK,
THEODORE F. JENKINS,

PAINT MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, Oct. 1, 1889.

White Lead, Zinc, Etc.

Pigiead has shown a little more strength during the past week as consumers have been more liberal buyers. The reported transactions aggregate about 1,000 tons for spot and future delivery at 3 87½@3 90c. At the close the quotation was somewhat nominal at 3 90c for spot and early futures and 3 92½@3 95c for later deliveries. Messrs. Everett & Post write us from Chicago under date of Sept. 28:—" This market has ruled fairly steady during the week, and holders generally have been firm at and around 3 80c. Concessions, however, by one refiner have reduced values to a 3 75c basis. Sales during the week foot up 600 tons, spot and October. At the close the market is steady at 3 75@3 80c. There has been but little change in values at St. Louis, though business has been active at current quotations. Altogether 800 to 1,000 tons have changed hands, mostly at 3 72½c. At the close the market is strong at 3 72½@3 75c."

White lead has been in better demand the past week, but business is hardly as brisk as usual at this season of the year. The market is firmer, and we have no change to report in prices. We quote:—7¼c for lots of less than 500 lbs and 7c for lots of 500 lbs and over, 60 days' time, or a discount of 2½ per cent will be allowed for cash in fifteen days from date of invoice. To buyers of a total of ten tons of pure lead during the year, counting all brands, an extra rebate of ¼c per lb will be paid, payable July 1st and December 31st, provided deliveries have been made of such quantity prior to each of those dates.

Dry Colors.

REDS.

Dealers, generally speaking, are at present occupied in making up the past month's business, a month in which much was expected of the paint market, but that the past thirty days have proved rather a disappointment as regards trading cannot be denied, and is universally conceded by dealers. True, some of the specialties and other lines handled by the trade have been taken in their usual quantities, but speaking strictly of dry colors, the business doing has not been up to the average. The weather has played no small part in bringing about this state of affairs, the unprecedented number of rainy days having made outdoor work impracticable. It is hoped, however, that the month just entered upon will witness an improvement in trading, and the market assume an animated appearance. Prices in all instances have ruled steady.

Venetian reds have sold in a moderate jobbing way, but there has been a total absence of interesting items, and prices are unchanged from a week ago. Domestic makes have been in moderate request and full supply at old figures.

Orange mineral has been in fair request, with stocks coming forward slowly, and the same are being taken up immediately upon their receipt. Prices have ruled steady. Domestic kinds have continued in moderate demand at former rates.

Cobalt oxide has been steady, with the regular demand reported, the same being supplied without comment by dealers. No features are apparent.

Red lead and litharge—The combination prices are quoted, and have been upheld in all instances. The wants of buyers have continued on the moderate order, and holders find no difficulty in supplying the current demand.

Carmine has ruled featureless, purchasers having supplied their moderate wants as they have occurred, and a total absence of animation has been noted. Prices have ruled steady, being quoted at the rates previously adopted by the makers.

Quicksilver Vermilion has sold to a moderate jobbing extent at the recently adopted figures. The demand can hardly be said to be up to the usual requirements of the season. Values are ruling steady.

BLUES.

The general market for blue pigments has continued inanimate during the period since we last wrote, and manufacturers have found abundant time to look over their books and figures on the past month's business. There has been no incentive to alter values and they rule as before. There are positively no features to the market.

GREENS.

The market for green pigments has not changed materially from a week ago. The moderate jobbing trade reported at that time has continued to exist, and has been supplied without comment by dealers. Prices have not been changed. Paris has been quiet, no movement whatever being reported.

Miscellaneous.

Sulphate of Barytes—There has been a fair jobbing business transpiring in the domestic grades, while some of the special brands of foreign have been in good demand, and in only moderate supply. Prices are quoted steady, but are unchanged.

Chalk—To use the phrase of a prominent dealer, the market for this article is a decidedly " negative one," there being no offerings, no inquiries, no parcels on the way, and none loading, so far as is known, a condition of affairs which has not prevailed before in many years. A lot was received during the week, but the same was sold some months ago, and went direct to consumer.

China Clay—There has been no particular business doing, the demand being jobbing in character, and of fair proportions. There is no overstock of the finer qualities, while medium grades are in fair supply. Prices have been unchanged.

Talc has ruled quiet, the demand being exceedingly limited, while the market has ruled without feature and prices unaltered.

Terra alba has also been in limited request, while prices have been stationary and ruling nominally steady.

Whiting—Manufacturers in some quarters are well sold up, and are now engaged in filling their contracts, but there is plenty of stock available at the moment, and concessions are reported to have been made in order to induce business in certain directions.

Clues.

The demand continues fair, though not so active as for some weeks, and there is a full supply of both domestic and foreign grades offering. Prices on the whole are firm, though there is some hesitation in the market until the new crop begins to come in.

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Glass.

WINDOW GLASS.

The demand for sheet glass has not yet reached satisfactory proportions altho ugh a gradual improvement in the volume of business is noted. Locally a firm feeling obtains but in the interior the market is still unsettled. At a meeting of the importers on Monday the price was advanced by fixing the discount at 75 & 5%. This action was due to the increased cost in the primary markets. No change has been in the discounts on American.

PLATE GLASS.

There is quite an active demand for plate glass and supplies, particularly of the larger sizes, are small, the market presents a very firm appearance and higher prices are probable. For New York and vicinity the discounts are 50 & 10% on sizes over 10 feet and 60 & 5% on smaller glass. Outside markets are controlled by manufacturers prices.

Arsenic in Glycerine.*

Within the past year several observers have publicly stated that they have met with glycerine of German manufacture which was contaminated with arsenic. The author of this paper has made an endeavor to ascertain to what extent this contamination is present in the commercial glycerine commonly sold for toilet and pharmaceutical purposes. The samples obtained were colorless and odorless' were both of English and continental manufacture,,and proved to contain arsenious acid, varying in amount from 1 in 6,000 to 1 in 2,500. The samples which were found to be free from arsenic were the best product of one eminent firm, what firm the author did not state, but he said that this arsenic-free glycerine was "the very kind and quality which is universally used by pharmacists in this country in the dispensing of prescriptions." For the detection of the arsenic the author recommended, and gave a demonstration of, Gutzeit's test, which is briefly as follows (we incorporate here Mr. Siebold's modification of the test, which he described in detail): Place a mixture of 5 c.c. of dilute hydrochloric acid (1 of s. g. 1·16 acid with 7 vols. of water), and 15 to 20 drops of the glycerine in a long test-tube (8 inches by 1 inch), with about 1 gram of pure zinc. Before adding the zinc, place a drop of mercuric chloride solution in the center of a small white filter-paper, allow to dry, and as soon as the zinc is put into the test-tube make the paper a cap for it. In the presence of 1-100 of a milligram of arsenic in the gram of glycerine a distinct yellow stain is formed on tne under surface of the paper cap in the course of a quarter of an hour, and in less time, according to the largeness of the amount of arsenic present. For all practical purposes a glycerine may be reckoned as pure which does not yield the stain within a quarter of an hour. The author did not approve of silver nitrate, suggested by Velpius, instead of mercuric chloride; the latter is not affected by light nor by the paper as silver is—moreover, it is not so easily affected by sulphur compounds, the action of which Mr. Siebold guards against by adding to the mixture of glycerine and acid a drop of iodine solution, or as much as will give it a distinct color. This "fixes" the sulphur, so that, if present, it is not eliminated as sulphuretted hydrogen.

Arsenic in glycerine is considered to emanate from the sulphuric acid used in the manufacture of the latter. It might possibly also emanate, partly at least, from the glass of the bottles in which the glycerine is kept. Years ago the author traced the presence of lead in liquor ammonie acetatis to the solvent action of this liquid on the lead of the glass. What uggested to him a similar action in the present case was the well-known and very powerful solvent action of glycerine on arsenious acid, and the observation during his recent experiments that samples of a certain well known brand of glycerine which had been kept in bottles for a long time contained arsenic, while this impurity was absent from samples of the same brand drawn from tins. This difference may have been purely accidental, but it certainly renders it desirable to study the action, if any, of pure glycerine on bottles of various kinds of glass; and that he is at present engaged in investigating. Pure glycerine kept in certain bottles for months, and the same article similarly kept in bottles from another glass company, proved to be free from arsenic. With reference to the bottled glycerine in which he found arsenic, while a sample of the same make from a tin contained none, he stated that the bottles in which this was contained were made of glass in which he had no difficulty in demonstrating the presence of arsenic.

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OIL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, Oct. 1.

Vegetable Oils.

The feeling throughout continues steady, and trading is characterized by more activity in most of the lines for immediate consumption. There is an absence of large transactions, but the frequent repetition of orders, which is very noticeable, is accepted as evidence that consumers have allowed stocks to run low, and that their wants are growing in importance. Sellers are apparently satisfied with values, except for cotton oil and olive oil, which are still favoring buyers.

Linseed oil has a good outlet at usual prices, but we hear of periodical offerings of New Jersey brands at 1c under the price of Ohio and State oil on spot, which is quoted firm at 57c for carloads, and 58c in a jobbing way. These figures are named for the balance of this month. A bid of 56c for two carloads has been refused. City brands have not varied in price, and are enjoying a good demand at 60c for Calcutta seed oil. Domestic seed is being used by the city mills in a small way, but the oil will not be offered for a week or two.

The cotton oil market is the magnet around which all the interest centers, but there is little fresh information to be given. The competition over seed in the south continues, but crushing operations are in progress as usual, notwithstanding the comparatively high price for the raw material; and the efforts to place the manufactured products are just as active as previously noted in this column. No difficulty is experienced in obtaining supplies of crude oil for this month and November delivery at 32c, and for an important quantity 31c would be accepted. The latter figure was paid for two lots of 100 bbls each, New York delivery. Buyers are not disposed to trade at 32c, but considerable oil bought earlier in the season at that, will commence to arrive about the middle of the month. Some of the southern crushers have named 33c as their limit for New York delivery until December, and are indifferent about entertaining lower figures. However, there is considerable effort made to place supplies in this market. Refined oil is offered at 38@40c for delivery until December, but the solicitation of business on domestic account is not encouraging to holders. There is a noticeable absence of December offerings in either crude or refined, and a similar circumstance is to be noted among the buying element, which would indicate a lack of confidence in December values. The uncertainty has a depressing effect upon the market, excepting in the case of spot supplies which are moving off moderately well in a jobbing way at 30@32c for crude and 36@45c for refined, according to quality and size of order. A telegram from our New Orleans correspondent to-night reports the seed situation unchanged, and the market for products inactive.

Exports of cottonseed oil from New York by countries:

To	For week ending Sept. 30, 1889. Gls.	Since Sept. 1, 1889. Gls.	Same time last year Gls.
Africa	..	..	....
Arg. Republic	..	....	....
Australia	..	....	....
Austria	4,966	68,980	....
Belgium	..	190	2,000
Brazil	..	2,754	1,926
Br West Indies	684	4,509	3,529
Br Guiana	925	925	229
Canary Islands	..	....	....
Central America	20	20	....
Chili	..	....	....
China	..	....	..
Cuba	..	52	....
Dan West Indies	565	635	241
Denmark	..	....	150
Dutch West Indies	..	10	....
Ecuador	..	....	....
Egypt	..	....	....
England	8,430	99,894	1,482
France	..	54,741	....
French West Indies	..	....	....
Germany	..	19,967	29,450
Hayti	..	100	48
Ireland	..	....	
Italy	..	25,126	..
Japan	..	....	....
Mexico	..	....	56
Netherlands	..	250	190,721
New Zealand	..	632	....
North America	..	240	....
Norway & Sweden		....	1.30
Peru	..	....	....
Porto Rico	..	....	....
San Domingo	..	80	....
Scotland	..	....	....
Spain	..	....	....
Turkey	..	..	....
U S. Columbia	..	54	120
Uruguay	..	....	....
Venezuela	..	238	....
Total	15,590	284,159	219,237

Exports of cottonseed oil from New Orleans by countries:

To	For week ending Sept. 30, 1889. Bbls.	Since Sept. 1, 1889. Bbls.	Same time last year. Bbls.
Austria	..	....	....
Belgium	..	....	....
England	..	..	....
France	..	..	....
Germany	..	..	....
Gibraltar	..	....	....
Italy	..	..	..
Mexico	..	..	....
Netherlands	..	..	....
Portugal	..	....	....
Spain	..	..	....
Total	..	..	....

Exports of soap stock from New Orleans by countries:

To	For week ending Sept. 27, 1889. Bbls.	Since Sept. 1, 1889. Bbls.	Same time last year. Bbls.
Belgium	..	....	..
Cuba	..	....	....
England	2000	2,000	....
Germany	..	....	62
Italy	..	....	....
Mexico	..	....	....
Spain	..	....	....
Total	2000	2,000	62

Ceylon cocoanut oil is in a good position, and has a fair jobbing demand at 5 11-16@5¾c for spot supplies. Goods on the way can be had at 5⅝@5¼c. There is some figuring on stock afloat. Cochin oil can only be obtained from the London market, if supplies are required before the arrival of the next sailing vessel; about 6¼c is the quotation for London shipment; very little interest is manifested in the article. Domestic cocoanut oil is offering at 5½c.

Olive oil is favoring buyers at the former quotation of 72c, with the probability that 71c would be accepted on a plump bid. A few lots of 25 and 50 bbls each have changed hands. Some holders continue out of the market at the price, and expect to realize their views later on. The subject is treated at length in our editorial columns. From the producing countries we hear that, owing to the increase of consumption and to speculation, prices in Messina have considerably advanced. From Greece and the Greek islands none, or scarcely any oil, is offering for export, while the Candia market is also closed. The crop in Tunis is reported a very small one, and no oil will be available for shipment; while the shipments made from Mogadore are also likely to be not very large. In Spain prices are very firmly held. On the Naples market also prices are advancing, although the crop in Gioja—which is one of the largest oil-producing districts—is a good one; and the stock of oil at the market centre of Gallipoli is rather heavy.

The lubricating grades of castor oil have not been altered in price, but it is claimed that the regular schedule is not being adhered to. Some developments are promised in this market within a week.

Rapeseed oil has a slow sale but is apparently firm at the previous figure of 65c.

Palm oil is unusually quiet, and exporters state that having transacted no business in that article for some days, they are unable to quote a price.

Animal and Fish Oils.

The general market looks as if better results are to be the outcome of the autumn trading. The tone has improved, values have an upward tendency, and the movement of goods is larger, except in tallow, which continues depressed.

Lard oil has been selling at higher figures, and is now firmly held at 54c for prime city. The lard rejections caused considerable comment in the trade. They are referred to in our editorial columns.

Red oils are not on such a steady basis as previously noted, on account of the uncertain and unexpected course of the tallow market. Elaine oil is quoted as usual at 36@39c, but saponified is offering at 4½@4¾c for western brands, while city make is still held at 5c.

Crude sperm oil is wanted for export but the views of holders are too high for business. A sale of 900 bbls at New Bedford for manufacture is reported but as usual on private terms.

The whale oil market is reported firm, but the stock of crude available is so light that it is scarcely worth consideration.

Whalebone has more inquiries, especially for export. The latest transactions were 9,000 lbs of new Arctic bone, at $3 25 per lb, for shipment abroad, and 7,000 lbs for domestic manufacture, on private terms. The market is steady at $3 25@3 50 per lb for new and old bone. The stock is distributed as follows:

New Bedford—Arctic,	None	
" " Jap & Ochotsk,	13,700	16,700
" " South Sea,	3,000	
Elsewhere—Arctic,	99,800	
" Jap & Ochotsk,	1,500	101,300
" South Sea,	none	
Total.		118,000

Menhaden fish oil is finding a good outlet. The entire stock on hand of one factory, consisting of 1,200 bbls, has been taken for domestic manufacture. The price is not stated, but one figure was paid for the oil as it run, including dark and light grades, and it is believed that the actual price was 31c. It is not known whether the sale was made to

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Boston or New York parties, but the fact that the oil was bought for pressing in this country is not denied. Additional business has been done on domestic account at 23½c for prime light oil, but the amount of oil changing hands is kept private; at all events it is represented to be a round lot. There is a feeling that firmness is taking hold of the market, and the liberal buying on the part of pressers would seem to confirm it. They generally operate on a large scale when they see the future against them. Exporters are in the market for choice oil; the best selected is quoted at 25c, and it is said that 24c has been bid by shippers without resulting in business. The dark grades are offered them at 21c. Holders of light oil are asking 23½c, and claim that they can get that figure, while buyers quote it at 23c. They think a bid of 23c would not be declined. A new use for menhaden oil is referred to in our editorial columns. At a recent meeting in Boston before the Senate Committee upon "Trade with Canada," it is stated that a member of the fish oil trade gave some figures as to the classification of cod and menhaden oils for fourteen years. He could get along without reciprocity, for the export was large and there was plenty for home use. However, it is believed that reciprocity would benefit the fish oil interests of both countries. The fishery question will be considered later, either in New York Washington.

Cod oil has a slow demand, and previous figures of 30@35c are quoted, according to quality. We hear of no complaints about adulteration, which was formerly a bone of contention in the market.

Oil Cake.

Shippers of oil cake are still resting on their oars, waiting for a turn in the tide of events. They claim that ocean freights are too high for doing business, and that buyers on the other side seem indifferent about the market. The former figure of $25 per ton is still quoted in a nominal way, but no opportunity has been presented for arriving at actual values.

Wax, Lard, Tallow, Etc.

The lard market has been unusually active at better prices, but it is uncertain how long the improvement will continue. Western steam on spot has fluctuated considerably, and is now quoted at 6 60c. Refined lard has sympathized to a light extent, being held at 6 55@7 15c.

Lard stearine has a slow movement at the unchanged figures of 7¼@7¾c for western and city. Oleo stearine is quiet at 5½c.

Tallow seems depressed at 4½c, and no immediate improvement is looked for.

Spermaceti is gradually rising, with 22@23c now asked. The inquiry continues good.

Naval Stores.

Spirits Turpentine.—The market has fluctuated somewhat during the period since we last wrote, and those who held off for lower prices were much surprised on Saturday to see the market checked in its downward course and respond to stronger southern advices. There were many who have been refusing to buy on account of the tendency of the market and in consequence the trading during the week has not been out of the ordinary; in instances, however, buyers have been forced to secure stock, owing to their having held off for so long a period, and about 250 bbls changed hands to-day at the advanced figures. The closing rates show an appreciation of ¾c over the prices for the same time last week, and the market closed firm.

Rosin—The prices of many of the better grades show an advance in consequence of the fact that there is said to be little rosin here and supplies are being taken up as fast as received. The common grades, however, have been neglected and are unchanged in prices. At the close to-day these grades were dull, while the other grades were steady, with the following figures ruling: strained, $1 02½; good strained, $1 05; E, $1 15@1 22½; F, $1 30 @1 35; G, $1 40; H, $1 50; I, $1 80; K, $1 85@1 90; M, $2 05; N, $2 25@2 30; W G, $2 55; W W, $2 65 @2 70.

STOCK ON HAND AT

	Spirits.	Rosin.	Tar.
New York, Sept. 30..Bbls.	1,494	19,864	552
Savannah, Sept. 28.....	13,517	53,318	....
Wilmington, Sept. 21....	5,933	43,082	1,243
Charleston, Sept. 28.....	2,465	17,663	....
London, Sept. 2.....	6,300	....	....

The following is from the Savannah *News* of September 29.

NAVAL STORES STATEMENT.

	Spirits.	Rosin.
Stock on hand April 1	1,947	73,092
Received to-day	856	2,053
Received previously	124,679	314,201
Total	128,482	389,346
Exported to-day	421	214
Exported previously	114,109	333,964
Total	114,530	334,178
Stock on hand and on shipboard to-day	13,952	55,168
Receipts same day last year	773	1,312

Messrs. Watt & Son, London, under date of Sept. 14, say:

	1889.	1888.	1887.	1886.
Stock Sept. 14.	12,622	13,765	16,565	16,745
Delivered this week	913	1,268	1,546	1,252
Since Jan. 1	42,276	46,929	50,180	54,463
Price Sept. 14	30s 0d	29s 9d	24s 3d	28s 6d
Oct-Dec	34s 9d	30s 6d	24s 6d	28s 6d
Jan-April	35s 3d	31s 6d	25s 3d	28s 9d

Ozokerite and Petroleum in Galicia.

The deposits of ozokerite at Boryslaw were recently described by A. Rateau. In an area of 250 acres, divided among about 1,300 owners, there are from 12,000 to 13,000 pits, of which about one-tenth are now working. The pits are from 3 to 8 yards apart, and each works an area of from 9 to 64 square yards. The pits are square, and ordinarily have a section of about 10 squre feet, and when they encounter a vein or bed of ozokerite, a drift is driven on it, if possible into the adjoining property, until it closes by a fall.

The produce is drawn by a jack roll worked by a man or woman. The mortality from accidents is about 2 per cent. per annum.

Great danger arises from inflammable gases, which are inclosed in the strata under great pressure. Mueseler or Marasaut lamps are in universal use.

The produce is either pieces of nearly pure ozokerite or earths rich in ozokerite. After the pieces of pure ozokerite are picked out by women, the earths containing 8 per cent. are treated with cold water, and the ozokerite separates, owing to difference of density. After this washing, the earths containing 4 to 5 per cent. are placed in casks and boiled with water, the ozokerite floating to the surface at a temperature of 212 degrees Fahrenheit. It is proposed to treat the residue containing from 1 to 1½ per cent. of ozokerite with benzine, so as to remove the last traces and remove the benzine by means of steam heating.

The pure ozokerite is melted and run into loaves weighing about one cwt. The cost of washing, etc., is about 18 cents per cwt.

Details are given as to cost of working, etc. In 1886, the selling price was from $100 to $125 per ton, and cost of production from $65 to $75, leaving a profit of from $25 to $50 per ton.

The annual production has varied from 4,000 to 18,000 tons, and in certain years the value has exceeded $1,800,000.

Other deposits of ozokerite are found at Truskawice, Starunia and Dwniacz, always in Miocene formations.

The most celebrated petroleum region of the Carpathians is at Slobodarungurska, about three miles from Kolomea. It is probable that oil issues from Eocene formations, although certain geologists consider that they are of Miocene age. The workings are concentrated in a clearing, in the bottom of a valley, and surrounded by the state forests.

Beneath the alluvial deposits of sandy clays, the boreholes traverse a series of beds of shales and sandstones, dipping toward the southwest. The sandstones are the only beds impregnated with the petroleum, and down to a depth of 300 yards there are three of these oil bearing horizons; the petroleum is also found in the faults.

The mining area covers about 800 acres, and all pits sunk to a certain depth in this area are productive. The oil is worked by means of boreholes, which were first made by hand labor, but the Fabian and Canadian systems of boring are now universally adopted (full details are given of these two systems).

The mean produce of a well is from 25 to 30 barrels per day, and the life of a well is about two years. The holes are usually not less than 20 yards apart. The total production of a well is from 15,000. to 20,000 barrels. The annual production of the district is about 750,000 barrels.

The density of the oils diminish in depth; when shallow it may be 38 degrees with 6 per cent. of paraffine; at some depth it may be 35 degrees, with only 1 per cent. On distillation the oil yields:

Benzine	22
Lighting oils	56 to 60
Paraffiine	1 to 6
Residues and loss	12

The royalty paid to the owner of the oil is usually 50 per cent. of the produce. The price of a barrel is about $2.50, and in a well with an average output and duration, the gross produce will be worth from $37,500 to $50,000. The cost of boring ($9,250), maintenance for two years ($925), attendance ($4,400), and sundry charges ($1,925), may be estimated at $16,500.

The royalty at 50 per cent. will vary from $18,750 to $25,000, and the net profit from $2,000 to $8,500.—*Annales des Mines.*

American Petroleum in China.

One of the most striking features of recent customs returns is the rapids growth in the import of Russian kerosene oil into this country (China). Indeed, judging by the leaps and bounds by which the new trade advanced, one might, with reason, conclude that the American oil was giving way before the Muscovites. Brother Jonathan had surely needs bestir himself or the oil wells of Pennsylvania and other States will cease to supply this illuminant to the far east, as they have done for years past. It is not hard to explain the progress of Russian oil here. It is somewhat cheaper than its older rival, and its sources of production at Baku are simply unlimited, there is nothing a Chinaman appreciates more than being able to save the most trifling sum, and it is because of its being a trifle under the cost of American oil that Russian kerosene is finding such demand in Shanghae. The trade is not yet two years old: yet the stock of Russian kerosene held in Shanghae to-day is larger than the other. There are at present some 277,000 cases of Russian oil held here, against 185,000 cases of American. The prices ruling, as given in Mr. Bielfeld's last report, are somewhere about 1·37½ tls. to 1.40 tls. for Russian and 1.50 tls for American. The arrivals from January to July this year were about 225,000 Russian, against 353,000 American; or roughly speaking, the American oil is represented by 60 per cent. and the Russian by 40. These figures speak for themselves. Five steamers of different nationalities brought full cargos of Russian oil from Batoum to Shanghae since the beginning of the year, and two more are on their way. The carrying capacity of these vessels is enormous, and most of them have been specially built for the trade. They fly almost every flag, but principally the German and Italian. The Italian steamer "Palestro" and the German steamer "Ehrenfels," which arrived here during the past month, brought respectively 99,800 and 84,000 cases; the first named being consigned to Messrs. Jardine, Matheson & Co., and the second to the China & Japan Trading Company. The Italian steamer's cargo was the biggest consignment of oil ever brought by any vessel to Shanghae. Looking back over previous customs returns, we find that the import of American kerosene has dropped from 5,995,710 gallons in the three months, 1886 (when no doubt there was an oil boom which many of our readers will remember perhaps regretfully), to 1,857,200 gallons as per last return, while the Russian oil grew from nothing in 1887 to 2,254,440 gallons for the same period according to the same authority. Of this quantity about half of the American and a third of the Russian are re-exported. The first attempt to place Russian oil on the local market was made early last year, Messrs. Jardine, Matheson & Co., being the pioneers in the trade. They soon had imitators and now there are two other large firms engaged in the business, and no auctions of the Russian oil are at present held daily. The Chinese, as they always are of innovations, were at first distrustful, but the superior quality of the article soon established its reputation, and the prices correspondingly improved. The principal, and indeed the only objection which the Chinese have to the Russian oil is the inferior workmanship of the cases, which give great trouble and entail heavy loss in leakage, while the American tins are very strong and well finished. We would be sorry to see the American trade crushed by its new rival, but we suppose it is a contest of the survival of the fittest, or rather the cheapest, in this as in every other struggle in human affairs. We imagine, too, that with the present energetic Governer of Formosa at the head of affairs we shall some day hear of the development of the oil deposits of that wonderful island."—Shanghae *Mercury.*

Fish Offal as a Fertilizer.

It is known that a valuable guano can be made from the refuse of fish, and it is proposed to utilize for this purpose the refuse of salmon canneries on the Frasers and other western rivers. This being the case, the saving to the canneries will be undoubted, by the utilization of what has hitherto been wasted, while the convenience of the fertilizer for agricultural purposes is a feature of especial interest to farmers wherever they are within easy reach of the sea coast.

A gentleman well known on the lower Fraser sent lately to Professor Shutt, M.A. F.I.C., chemist for the Dominion experimental farms at Ottawa, a package of fish guano, made from the refuse or offal of the salmon canneries, immense quantities of which go to waste every year, and requested his report upon it after its examination and analysis. The reply was in substance as follows: "As to the fish waste or refuse from the salmon canning factory forwarded by you for examination in June last. Chemical analysis affords the following data:

Water	5·19
Organic matter	46·99
Ash or mineral matter	47·82
	100·00
Nitrogen in organic matter	3·47
Mineral matter soluble in water	1·14
Mineral matter soluble in dilute acid	40·98
Mineral matter insoluble in acid (clay and sand)	5·70
	47·82
Potash	·69
Phosphoric acid, soluble	·12
" " reverted	9·29
" " insoluble	8·19
Total phosphoric acid	17·60

Valuation for two thousand pounds:

Soluble phosphoric acid (7½ cts.)	$1.80
Reverted " " (7 cts.)	13.00
Insoluble " " (5 cts.)	8.19
Nitrogen (15 cts)	10.41
Potash (5 cts)	76
	$34.16

"This is evidently a very valuable fertilizer, and one of special value as a manure for wheat and other grain crops, or for application to soils poor in phosphoric acid and nitrogen. The 'reverted' phosphoric acid, though not immediately assimilable by plants, is more or less easily rendered so in the soil, hence its value is but little below that of the 'soluble' form. The notable quantity of nitrogen this fish refuse contains makes the fertilizer one of general application — the nitrogen being in a form very valuable as plant food."

It is probably not going too far to assert that this manure will come into popular use before very long. It is only a few years since a gentleman endeavored to form a company to make fish guano on the Atlantic Coast, and spent some time in England unsuccessfully in trying to get capitalists interseted in what was deemed a far-fetched scheme. It was not necessarily so, for fish refuse is known to be rich in phosphates. But it was less promising than the proposal to make fish guano on the Fraser River, because the salmon canneries are on land and their refuse is easily got at, while on the Atlantic Coast much of the fishing is done under different conditions. We shall be glad to hear further of Mr. Green's experiment which is in every way deserving of success.—*Toronto Monetary Times.*

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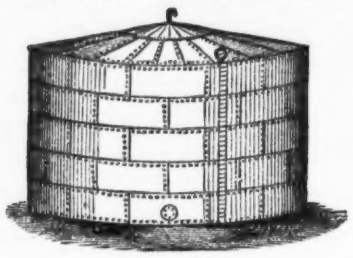

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PETROLEUM MARKET.

TUESDAY EVENING, Oct, 1, 1889.

The course of the speculative market in pipe line certificates during the week under review has been tending to a lower average, due in a measure to the bearish tendency of the reports from the producing fields, especially from Butler county where several wells of large initial production have been brought in, and also to the general lack of speculative interest shown. The week in the latter respect has not differed from the week preceding and it has come to be regarded as a settled fact that the outside operators have given petroleum certificates the go by. Sales of half a million barrels would now be regarded as a good day's business and the sale of a million barrels would be considered active trading. This is in strong contrast to the days when the average amounted to over 3,000,000 bbls per day. To remedy this the operators have discussed various plans and have come to the conclusion that a return to sales for delivery on the succeeding day would prove a help to business. In accordance with this view a petition has been sent to the board of directors asking that a vote of the conference of exchanges be taken on the proposition. From a canvass of the several exchanges it appears that but eight votes of the total fourteen can be relied upon in support of the proposed change, and as three-quarters of the entire number are necessaay the prospect is not considered favorable. An official vote will be taken in all the exchanges this week and if the amendment is defeated some other plan will doubtless be proposed, though what action will be taken is not as yet determined. The fact is that the outside public has shown an unwillingness to invest in pipe line certificates and it is extremely problematical if changing the rules will help matters. The same apathy on the part of the outside operators was a notable feature of the situation before option trading was inaugurated. The general situation remains about the same the daily deliveries continuing to exceed the runs by over 25,000 bbls and the drain on the stocks above ground is unchecked notwithstanding the reports of the incoming of new wells of large initial production. The monthly field report, it is believed, will show that there is a gradual extension of the field, and that while the older wells show a gradual decline, the constant accessions of new wells will show a steady increase in the aggregate production. This will doubtless be the case, but the consumption is increasing at a rate far greater, and the season is now approaching when field operations will be restricted by unfavorable weather conditions. Taking all things into consideration, it is difficult to see wherein the situation has lost in strength. In fact, the statistical situation is growing stronger every day, and bearish talk goes for naught with those who look beyond the surface. The transactions during the past week show a decrease from those of the previous week the sales footing up 1,639,000 bbls against 1,927,000 bbls for the preceding week. The clearances of the local exchange amounted to 2,678,000 bbls, against 2,812,000 bbls during the preceding week. The total clearances reported for the other four exchanges amounted to 6,408,000 bbls against 4,662,000 bbls for the preceding week. The highest price of the week was reached on Thursday, when 99¼c was touched. The lowest point of the week was 9⅝c, and was touched on Wednesday. The opening price last Wednesday was 98¼c, and the close this evening was at 98⅞c, showing a gain of ⅝c as the result of the week's trading, while the extreme range of fluctuations for the week was 1⅛c.

Wednesday, Sept. 25.

The market opened a little stronger at 98⅛c, and this was the lowest price of the day, there being a gradual advance from the start, although buying was slow. With every buying spasm the figures would be moved up a point or two while an interval of dullness would cause a slight weakening, which would be followed by a renewal of buying, and in this manner the greater part of the day passed. The highest point reached was 99⅛c, but later the market eased off somewhat and brought the final figures down to 98¾c, making a gain for the day of ⅝c, under a range to quotations of ⅞c. The sales amounted to 330,000 bbls. There were no developments of interest, and the principal theme appeared to be a petition to change the present plan of trading to make "regular" oil deliverable on the day following the sale. The petition was quite numerously signed. At Jefferson Centre Robinson, Weber & Co., on the Sunna farm, was deep enough in the sand to have some oil, but it is dry. The location was condemned some time ago. The Campbell & Murphy geiser was making 36 inches an hour this afternoon when the tools were run about a foot and a half of screw let out. An hour's gauge afterwards made it doing 100 bbls an hour. The total daily production of the field is 3,200 bbls. Campbell & Murphy's No. 1, Walker farm, below Frazier's mills, was shot, and while cleaning out flowed at the rate of 5 bbls an hour. The sand is good and a 50-bbl well is assured. The one hundred foot district contains more new work than any other portion of the county. The figures for the month are in and show 35 wells drilling and 20 rigs up and building. In the southwest field neither Hout & Davis nor York & Co. reached the sand, but are due to strike any time now, and Mackey's well on Blackhurst lot, is in the same list. McKane's well, Grayson & Wallace lot, is on top of the sand. The syndicate well, Bakerstown, is doing 18 bbls per hour to-night.

The half-hourly quotations were as follows:

A. M.		P. M.	
10:00	98¼	12:30	99
10:30	98⅜	1:00	99⅛
11:00	98⅝	1:30	99⅛
11:30	98⅛	2:00	99
12:00	98⅞	2:30	98⅞
		3:00	98⅞

The clearances were as follows: New York 234,000; Oil City, 626,000; Pittsburg, 574,000; Bradford, 742,000; Philadelphia, 00,000; total clearances Sept. 25, 2,1 6,000 bbls.

Carrying rates were: New York, 25c (renewals, 25c); Oil City, 25c; Pittsburg, 25@30c; Bradford, 20c.

Market Sept. 25, 1888—92⅛@94⅛c.

Thursday, Sept. 26.

The attendance and interest shown this morning were a decided improvement on yesterday, and the indications pointed to a higher range of prices. The first sale was made at 99½c, a gain of ¼c over the close of last evening, but quite a number of those who got in at the lower figures yesterday sought to unload at this advance, which caused a steady decline to 98¾c. This was the lowest price of the day, however, there being few sellers under, or even at 99c. During the afternoon, under moderate bidding, the figures were brought up to 99½c. This put a stop to purchases, and the market thereafter continued dull to the close, with the tendency steadily downward. The close was at 99c, making a loss for the day of ½c, under a range of ¾c. The sales footed up 336,000 bbls, including sales of 2,000 to-morrow at 99@99½c, and 2,000 cash at 99½c. There were no features of interest. The news from the field was rather favorable to the bull interest, and helped to strengthen the market. The news from Jefferson Centre shows that the gushers have sunken materially. In fact, with the exception of the Campbell & Murphy, the decline has been remarkable. The field's entire production is about 2,400 bbls, and the Campbell & Murphy is making 1,800 of that. The McCalmont No. 2 is doing 10 bbls, and Christie No. 1, on Greenert heirs, 11 bbls per hour. Yeakel & Co. No. 2 is five bits in the sand, and looks decidedly light. This well is not over 80 feet from the Campbell & Murphy gusher, and is surrounded by the large wells. Robinson & Co., on the Sunna farm, is finished and dry. It is a gasser of goodly dimensions. In the Saxonburg and Jefferson Center fields there are 13 wells drilling and five rigs up. In the Southwest field, Mackey & Co.'s, Blackhurst & Adams is 20 feet in the sand and flowing by heads. It did 50 bbls the first 13 hours. Achison & Co.'s Hamilton is 10 bits in the sand and just beginning to show gas and oil. Burns & Co.'s Lemayne No. 1 is on top of the sand.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	99⅛	12:30	99
10:30	98⅞	1:00	99¼
11:00	99	1:30	99¼
11:30	98⅞	2:00	99⅜
12:00	99	2:30	99⅛
		3:00	99

The clearances were as follows: New York, 748,000; Oil City, 222,000; Pittsburg, 470,000; Bradford, 440,000; Philadelphia, 20,000; total clearances Sept. 26, 1,890,000 bbls.

Carrying rates were: New York, 25c; (renewals, 25c); Oil City, 20@25c: Pittsburg, 25@30c: Bradford, 20c.

Market Sept. 26, 1888—93@93¼c.

Friday, Sept. 27.

The indications pointed to a higher range of prices as the opening sale was announced at 99½c, and the interest appeared to be whettled by the prospect of an advance. Under fair bidding a couple of points were added, but 99⅝c was not exceeded, and though several efforts were made to bring about an improved movement, they were not successful as trading was choked off with every move above 99c. During the noon hour, when it had become plain that the early indications could not be fulfilled, there was a disposition to unload, resulting in a rapid decline to 98⅜c. There was no reaction and 99c was not again reached. The trading during the afternoon was tame, few caring to sell at the figures bid while buyers refused to repeat their bids of the morning. A dispatch received from the secretary of the Bradford Exchange stating that "this exchange, at a meeting held this A. M. reached the conclusion that as the business of this exchange under the present rules had increased it was deemed inexpedient at the present time to change them." This was rather disappointing, and as reports from Oil City also indicate a similar feeling, many regarded the proposed amendment as doomed. Some of the operators claimed that these reports affected the market, which closed dull and weak at 98⅝c, making a loss for the day of ⅛c, under a range of 1c. The sales amounted to 325,000 bbls, including 14,000 September at 98¼@99c, and 2,000 cash at 99⅛c. Another new strike was reported from Butler county. The well in question is owned by Reed, Davidson & Co., and is located on the Dr. Irvin from south of Callery Junction. The well began flowing and caught fire, destroying the rig. The well continued to flow and burn, when, through the exertions of the men the flames were extinguished. It is a difficult matter to estimate what the well is doing, but reliable parties put it 75 to 100 bbls per day. Christie Bros,' No. 1, on the H. Welch, on Little Creek, near the Hazlett well, in the 100-foot field, got a good well, and is reported at 100 bbls a day. At Jefferson Centre, the Campbell and Murphy well is still making 70 bbls an hour. Yeakel & Co.'s No. 2, drilled without any improvement. Christie No. 1, on the Greenert, was shot with 30 quarts and it responded nicely, but afterwards dropped off again.

The half-hourly quotations were as follows:

A.M.		P.M.	
10.00	99⅛	12.30	99¼
10:30	99¼	1:00	98⅛
11:00	99¼	1:30	98⅝
11:30	99	2:00	98¾
12:00	99¼	2:30	98⅞
		3:00	98⅝

The clearances were as follows: New York, 5 8,000; Oil City, 92,000; Pittsburg, 206,000; Bradford, 338,000; Philadelphia, 16,000; total clearances Sept. 27, 1,180,000 bbls.

Carrying rates were: New York, 25c; (renewals, 25c); Oil City, 20@25c; Pittsburg, 25@30c; Bradford, 20c.

Market Sept. 27, 1888—93⅛@94¼.

Saturday, Sept. 28.

Dullness and general lack of interest was the feature most conspicuous this morning. The opening price was 98½c, at which figures there were buyers, but few cared to sell, and those who needed the oil were compelled to raise their bids. There was a very gradual, but steady advance, until 99½c was reached, shortly before noon. At this figure there were sellers, and the free offerings brought about a change, the market taking a downward turn, and closing weak at 99½c. This made a gain for the day of ⅝c, under a range of 1c. The sales amounted to only 73,000 bbls, including 1,000 for Monday delivery at 99c. In the Kane field Markham & Armstrong have completed their No. 2 on the Kane land, and it shows for a good well. They are drilling four wells on the Merrill land, and one is nearing the sand. T. H. Ryan is drilling No. 2 on his farm. Griffith, Philiber & Koester are drilling Nos. 23 and 24 on lot 382. Griffith & Wilson finished their No. 2 on the Nelson lot. It is showihg for a good well. They expect to finish their No. 3 on the Welker lot soon. Boggs & Armstrong finished a good well on 2,690, near Mt. Jewett, last week. The Anchor Oil Company finished their No. 4, on lot 2,689, which is a small well. They have a fishing job at their No. 5, which is in the sand. Rigs are up for their Nos. 6 and 7 on 2,690. On lot 2,671 Brewer finished a dry hole. Roth & Jennings completed a dry hole at Lafayette Corners. F. W. Andrews finished a small well on lot 2,688.

The half-hourly quotations were as follows:

A. M.		A. M.	
10:00	98½	11:30	99
10:30	98¾	12:00	99⅛
11:00	98¾		

The clearances were as follows: New York, 172,000; Oil City, 194,000; Pittsburg, 248,000; Bradford, 242,000; Philadelphia, 42,000; total clearances Sept. 28, 898,000 bbls.

Carrying rates were: New York, 25c; (renewals 25c); Oil City, 20@25c; Pittsburg, 25@30c; Bradford, 20c.

Market Sept. 28, 1888—93⅞@96⅜c.

Monday, Sept. 30.

The strength developed on Saturday was not sustained, and though the interval since has developed no new features the opening this morning at 98¾c showed a drop of ⅝c. There were a few present who sought to secure oil under 99c, and their efforts soon brought the figures up to 99½c, which was the highest reached, the market soon sagging off as the bidding became slow. The price soon settled back to the opening figure, and for the remainder of the day varied but slightly. Late in the day offers to sell caused a weakening, and the market eased off to 98½c, which was atso the closing figure. The well news was regarded as somewhat bearish, and to this was attributed the weakness, but it was doubtless due more to the lack of interest. The close showed a loss of ¼c, as the result of the day's trading, while the range to fluctuations was ⅝c. The sales footed up 228,000 bbls, which included 4,000 bbls to-morrow at 99c. In the Butler field the Reed well, south of Callery Junction and one-half of a mile west of Mioma station on the P. & W. R. R., which was struck Thursday evening and burned, is much larger than first estimates made it. It has filled two 250-bbl. tanks in 24 hours and a later gauge classed it at 20 bbls. per hour. The well is said to produce scarcely any water, in that respect being entirely different from the other hundred-foot wells. The well and 150 acres of leases were purchased by Barney Forst, O. M. Russell and C. D. Greenlee, the consideration being $35,000 cash. The bonus for lands in the vicinity of the strike has run up into the extremes, $300 an acre having been paid in some instances. Christie's No. 2 Greenart heirs' farm, Jefferson Centre, looked exceedingly blue. They, however, found a second pay streak and the well is now doing 200 bbls. per day. Yeakel & Co.'s No. 2 was shot with 60 quarts of glycerine. There was no response, but a similar dose acted on Campbell & Murphy s well, increasing it from 50 to 60 bbls. an hour. The Smith venture has had a break down which delays its completion. In the southwest field, Acheson & Co.'s Hamilton lot well filled a 250 barrel tank the first 24 hours. McKain's Wallace farm well is flowing by heads. His Grayson well is filling up in the first pay streak. The Fort Pitt well at Groveton is flowing once in three-quarters of an hour, and it is estimated to be doing between 100 and 200 barrels per day.

The half-hourly quotations were as follows:

A. M.		P. M.	
10:00	98¾	12:30	98⅝
10:30	99	1:00	98¾
11:00	99	1:30	98¾
11:30	98¾	2:00	98¾
12:00	98⅝	2:30	98⅝
		3:00	98⅛

The clearances were as follows: New York 252,000; Oil City, 96,000; Pittsburg, 100,000; Bradford, 206,000; Philadelphia, 20,000; total clearances Sept. 30, 674,000 bbls.

Carrying rates were: New York, 25c; (renewals, 25c): Oil City, 25@30c; Pittsburg 25c @30; Bradford, 20c.

Market Sept. 29, 1888—94@95¼c.

Tuesday, Oct. 1.

An improvement was noticeable in the general disposition to operate, doubtless owing to the fact that this was the beginning of a new month, and the dealings were now for November delivery. There was, however, considerable interest shown in October deliveries, and the bidding on this was at times quite as prominent as on regular. The opening price was 98¾c, and this figure buyers appeared willing to pay, but there proved to be few sellers, and the bids were switched off to October oil, which also opened at 98¾c. During the forenoon the sales of October were larger or more frequent than of November, and there was also a considerable transferring of October to November, but generally at a difference of ⅛@¼c. During the afternoon the market strengthened, as it was seen that purchases could not be effected except at higher prices, and the bids were consequently raised, the figures finally reaching 99½c. At this the offers to sell were quite numerous, and a reaction followed, the market receding to the close, which was at 98⅞c, showing a gain for the day of but ⅛c, while the range of quotations was ¾c. The sales reached a total of 347,000 bbls, including 90,000 October at 98⅝@99c, and 4,000 to-morrow at 99c. The news from the Butler field was to the effect that the Reed well at Myoma had produced at the rate of 17 bbls per hour during the last 24 hours. The Campbell and Murphy well was still making 50 bbls per hour. In the southwest field the Gibson, McBride & Co. well, Driven farm, was doing 18 bbls per hour. The Lock Kesselman well, Duff farm, south of Brush Creek, was flowing irregularly by heads, but will make a good well.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	98¾	12:30	98⅞
10:30	98⅞	1:00	99
11:00	98⅞	1:30	99⅛
11:30	98⅝	2:00	99¼
12:00	98⅞	2:30	99⅜
		3:00	98⅞

The clearances were as follows: New York, 744,000; Oil City, 682,000; Pittsburg, 484,000; Bradford, 296,000; Philadelphia, 32,000; total clearances Oct. 1, 2,238,000 bbls.

Carrying rates were: New York, 25c: (renewals 25c); Oil City, 25@30c; Pittsburg,25@30c: Bradford, 20c.

Market Oct. 1, 1888—95@96⅛c.

The amount of daily sales and total for the week follow:

Date.	Bbls.
Sept. 25	330,000
" 26	336,000
" 27	325,000
" 28	73,000
" 30	228,000
Oct, 1	347,000
Total for the weed	1,639,000

Following is given the opening, highest, lowest and closing figures for each day, in tabulated form for comparison:

	Opening.	Highest.	Lowest.	Closing.
Sept. 25	98¼	99⅛	98¼	98⅞
" 26	99⅛	99⅛	98¾	99
" 27	99⅛	99⅝	98⅝	99⅝
" 28	98½	99⅛	98½	99⅛
" 30	98¾	99⅛	98½	98½
Oct. 1	98¾	99½	98¾	98⅞

The total clearances during the week at the several petroleum exchanges foot up as follows:

New York		2,618,000
Oil City	1,912,000	
Pittsburg	2,082,000	
Bradford	2,264,000	
Philadelphia	150,000	
		6,408,000
Total		9,086,000

The demand for refined for export has been irregular, and principally for shipment in bulk, the shippers of barreled oil holding off, as they say, under the belief that the price would go lower, and they have made bids of 7c, which they are warranted in expecting will soon be accepted. The freight rates, they say, are also tending downward, and as the stocks abroad are large, they can afford to await a more favorable time to purchase. The holding off policy, however, cannot be

kept up very long at this season of the year, and the course of the speculative market for certificates is more likely to go the other way. The sales reached a total of 150,000 bbls, about four-fifths of which goes in bulk. The price of 70° Abel test was on Monday reduced to 7·05c for all loadings. The principal foreign markets are easier. To-day's quotations by cable were: Antwerp, 17⅛f; Bremen, 6·75m; London, 5¾@5¾d, and Liverpool, 5¾@6d. Freight rates are lower, and hence to London 2s 9d@2s 10½d is quoted, while to Continental ports the range is 3s@4s, as to port and vessel. Home trade lots have been in fairly active request. On these prices remain as before. We quote 9⅛@9¼c for State legal test, 8¼@8⅜c for 110 test, 8¾@9c for New York 100° flash, and 10¼@10½ for 150° water white. Western lots are offered at the same figures.

Cases for export have not met with much attention, although there has been some inquiry for later delivery. Sales of about 125,000 are reported. The price for plain tops has remained steady at 9·10c. Freight rates are easier. The nominal rates for large vessels are: For Java, 35@36c; Japan, 35@36c; Calcutta, 26@26½c; Bombay, 29@30c; Rangoon, 31@32c; Singapore, 31@32c; Hong Kong, 34@35c; and for Shanghae, 40@41c.

Crude in barrels for export has had a fair call, and sales of about 25,000 bbls are reported. The price was on Monday reduced to 7·55c. Cases for export have been slow and only a few sales are reported. The price has been reduced to 9·55c.

Prime city naphtha has remained steady at 8c. For export there has been no demand, and no sales are reported.

Western residuum is quoted at 2¼@2¾c f o b. Barrels are quoted at 5¼@5¾c. Only a few moderate sales are reported for export. Lima residuum is still quoted at 5@5¼c in barrels.

Closing Quotations.

CRUDE.

National Transit Certificates	℔ bbl.	98⅛ @ 99
In bbls	℔ gal.	7·55
In cases		9.55
Residuum, bbls, for export 18@22°.		5¼@ 5¾
for domestic use f o b		2¼@ 2¾

REFINED, IN BARRELS.

Cargo lots, Abel test	℔ gal.	7·05
Philadelphia loading		7 05
Baltimore loading		7·05
56 bbl lots, f. o. b. or on dock		8 @8⅛
10 bbl lots f. o. b. or on dock		8¼@

HIGH TEST OILS—JOBBING LOTS.

110 fire test, S. W	℔ gal.	8⅛@ 8¼
120 fire test, S. W		8⅜@ 8¾
130 fire test, S. W.		9 @ —
State test		9½@ —
150 fire test, W.W		10¼@10¾
300 fire test		10¼@11½
New York city, 100 flash		8¾@ 9

REFINED IN CASES, 110 FIRE TEST.

Two-five, low screw, cargo lots	9·10
5,000 to 10,000	9·25
1,000 to 5,000	9·30
700 to 1,000	9·40
400 to 700	9·50
300 to 400	9.60
200 to 300	9·70
100 to 200	10·60
Under 100	11·10

NAPHTHA AND GASOLENE.

Naphtha, crude, cargo lots, 68@72 deg		8 @ —
Naphtha, crude, car lots, 68@72 deg		@ 8¼
Naphtha, crude, 70 deg		8¼@ 9¾
Sweet, 62 deg		9¾@ 9¼
70 deg		9¼@10
76 deg		9¾@10½
Gasolene, 86 deg		13 @14
88 deg		15 @16
90 deg		18 @19

EMPTY PETROLEUM BARRELS.

Cargoes, spot	$1 05 @1 06
Domestics, on dock	1 02½@1 05
Subject to inspection	1 05 @ —

Petroleum Statistics.

RUNS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Sept. 23	65,693	1,164,143	50,615
Tues. " 24	64,147	1,228,290	51,179
Wed. " 25	65,330	1,293,600	51,745
Thurs. " 26	58,769	1,352,389	52,015
Frid. " 27	51,876	1,404,256	52,009
Sat. Sun. 28&29	93,137	1,497,393	51,634
		1888.	1889.
January		1,048,641	1,526,161
February		1,175,102	1,318,800
March		1,193,133	1,622,220
April		1,200,977	1,643,610
May		1,301,015	1,809,098
June		1,289,616	1,817,520
July		1,260,486	1,956,534
August		1,285,558	1,973,119
September		1,181,482	....
October		1,235,040	....
November		1,335,596	....
December		1,443,558	....
Year		14,950,204	...

DELIVERIES—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Sept. 23	96,910	1,840,056	80,002
Tues. " 24	102,995	1,943,051	80,960
Wed. " 25	85,526	2,028,577	81,143
Thurs. " 26	59,027	2,087,604	80,292
Frid. " 27	83,496	2,171,100	80,411
Sat. Sun. 28 & 29	128,544	2,299,644	79,298
		1888.	1889.
January		2,225,975	2,354,570
February		2,115,808	2,286,812
March		1,980,963	2,283,645
April		1,830,522	2,242,546
May		1,676,794	2,257,175
June		1,677,330	2,276,304
July		1,933,873	2,628,065
August		2,105,343	2,635,592
September		2,210,876	....
October		2,505,653	....
November		2,434,863	....
December		2,276,395	....
Year		24,974,390	....

CHARTERS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge.
Mon. Sept. 23	20,158	980,192	42,617
Tues. " 24	97,856	1,078,048	44,918
Wed. " 25	....	1,078,048	43,122
Thurs. " 26	32,381	1,110,429	42,709
Frid. " 27	86,507	1,196,936	44,331
Sat. Sun. 28&29	47,460	1,244,396	42,910
		1888.	1889.
January,		914,199	1,399,557
February		1,199,169	1,120,226
March		908,923	1,270,863
April		973,208	874,753
May		1,257 607	1,433,764
June		1,219,188	1,256,666
July		1,339,147	1,892,547
August		1,221,935	1,483,761
September		1,487,452	....
October		1,505,673	....
November		847,693	....
December		959,752	....
Year		13,923,946	....

CHARTERS FOR THE WEEK.

The total charters for refined in barrels and cases, crude in barrels and cases, naphtha, &c., during the week ending September 30, were as follows:

Refined, bbls	146,400
Refined, cs	127,000
Crude, bbls	27,000
Crude, cs	....
Naphtha, bbls	....
Residuum, bbls	....
Lubricating, bbls	....
Total, crude equivalent	305,315

CLEARANCES FOR THE WEEK.

During the week ending Sept. 30, the clearances of petroleum, in gallons, from the port of New York were as follows:

Refined	8,061,739
Crude	403,190
Naphtha	921,336
Residuum	....
Total	9,326,265

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons, for the week ending Sept. 21; also, the total shipments to date, with comparisons with 1888:

Exports from New York for week ending Sept. 21	13,013,245
Total exports from New York from Jan. 1, 1889	408,881,645
Same period last year	313,999,782
Increase	94,971,863
Exports from U. S. for week ending Sept. 21,	13,013,245
Total exports from U. S. from Jan. 1, 1889	503,066,951
Same period last year	426,559,644
Increase	76,307,307

TOTAL EXPORTS FROM DIFFERENT PORTS.

	1889.	1888.
New York	408,881,643	313,909,782
Philadelphia	89,982,205	104,536,561
Baltimore	1,235,367	4,541,647
Boston	2,778,339	2,037,735
Perth Amboy	.....	1,714,239
San Francisco	180,062	19,680
New Orleans	9,333	.....
Grand total	503,066,951	426,759,644

CAPACITY OF VESSELS LOADING.

The following table gives the capacity of the vessels loading petroleum at the ports of New York, Philadelphia, Baltimore and Boston on September 28:

	NEW YORK.		PHILADELPHIA.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	174,700	607,000	63,400	428,000
Crude	72,600	20,000	25,100	14,000
Naphtha	14,800	....	6,000	....
Total	162,100	627,000	94,500	442,000
	BALTIMORE.		BOSTON.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	8,000	....	....	....
Crude	....	....	....	....
Naphtha	....	....	....	....
Total	8,000	....	....	....

Foreign Statistics.

REFINED QUOTATIONS.

	Antwerp.	Bremen.	London
Wed. Sept. 25	17⅛@17¼	6.90	5¾@5⅞
Thur. " 26	—@17⅛	6.85	5¾@5⅞
Fri. " 27	—@17⅛	6.75	5¾@5⅞
Sat. " 28	—@17¼	6.75	5¾@5⅞
Mon. " 30	—@17⅛	6.75	5¾@5⅞
Tues. Oct. 1	—@17⅛	6.75	5¾@5⅞

STOCKS, RECEIPTS AND SHIPMENTS.

The statistical situation at the seven principal continental ports on Sept. 14, was:

	1889.	1888.
Stock, Sept. 14	762,075	542,851
Afloat "	395,065	331,228
Loading "	148,300	122,440
Total	1,305,440	996,519

Exports of Petroleum from New York

REFINED.

COUNTRIES.	Week Ending Sept 30. Gals.	Jan. 1 to Sept. 23, 1889. Gals.	Jan. 1 to Sept. 24, 1888. Gals.
Africa, Liberia	....	6,150	25,653
Sierre Leone	....	10,000	50
South Africa	55,500	1,743,275	1,034,835
Zanzibar	.....	430,000	353,500
Algiers	.....	1,300,050	1,276,330
Arabia	.....	460,000	190,000
Argentine Republic	143,200	3,490,110	2,239,453
Australia	88,320	2,458,451	6,237,057
Austria	.....	.....	138,023
Belgium	1,200,000	20,318,897	18,706,002
Brazil	326,492	6,913,969	6,828,418
British East Indies, Aden	.....	383,840	445,000
Burmah	.....	4,872,030	231,851
India	3,083,870	28,296,491	17,162,840
Penang	.....	2,185,025	630,000
Singapore	.....	2,344,295	1,297,556
British Guiana	5,000	345,230	357,049
British West Indies, Antigua	520	28,096	31,650
Barbadoes	.....	218,675	261,956
Basse Terre	200	36,020	41,220
Bermuda	.....	64,898	92,432
Domenica	60	17,455	7,620
Jamaica	13,780	406,505	459,626
Montserrat	.....	4,022	3,450
Nassau	103	50,812	42,774
St. Lucia	100	15,428	24,876
St. Vincent	.....	25,700	19,945
Trinidad	3,400	180,735	202,860
All others	.....	131,836	73,158
Canary Islands	.....	399,012	132,350
Central America, Belize	2,667	62,233	44,336
Costa Rica	.....	21,374	63,793
Guatamala	904	76,459	46,478
Honduras	.....	30,565	24,120
Nicaraugua	1,550	141,350	132,350
San Salvador	500	44,419	40,510
Chili	.....	757,176	2,386,750
China, Cochin	438,500	17,290,330	2,396,750
All other	....	.....	11,245,570
Cuba	2,360	889,907	452,042
Danish West Indies	4,327	50,117	33,724
Denmark	.....	3,605,669	3,308,758
Dutch East Indies, Java	.....	19,137,680	12,418,520
Macassar	.....	528,250	73,140
Sumatra	.....	520,000	825,000
Dutch West Indies	2,251	85,249	80,357
Dutch Guiana	.....	38,703	109,581
Ecuador	.....	111,000	93,200
England	35,457	34,545,966	28,879,042
Egypt	27,500	2,648,820	498,150
France	....	3,139,069	1,286,630
French Guiana	.....	21,000	20,200
French West Indies	3,000	2,631,434	300,077
Germany	1,899,447	69,782,604	66,140,587
Gibraltar	60,000	873,980	383,700
Greece	.....	.....	.....
Hawaiian Islands	.....	50,000	100,000
Hayti	6,181	343,152	276,179
Ireland	232,972	4,343,099	3,045,397
Italy	.....	4,947,127	629,707
Japan	200,000	12,633,160	8,008,460
Mexico	2,200	284,355	1,472,133
Malta	.....	.....	120,880
Mauritius Island	.....	.....	14,750
Moucca Islands	.....	102,730	.....
Netherlands	.....	25,075,544	12,058,710
New Zealand	.....	495,984	.....
North America, New Brunswick	34,185	567,749	522,415
New Foundland	5,087	80,784	164,978
Nova Scotia	32,500	335,800	303,493
Prince Ed. Island	.....	53,550	164,450
Norway and Sweden	158,746	6 731,064	5,348,148
Peru	100	513,568	210,829
Porto Rico	.....	546,640	489,195
Phillippine Islands	.....	1,395,000	317,000
Portugal	.....	463,611	700,648
Reunion	.....	177,000	74,500
Russia	.....	119,690	.....
Scotland	.....	300	145,220
Siam	.....	1,179,000	857,050
Spain	.....	509,970	175,700
Tasmania	.....	64,800	.....
Turkey	.....	.....	435,764
U. S. of Col	20,198	762,347	525,893
Uruguay	.....	2,555,040	939,290
Venezuela	21,312	889,970	597,718
Wales	.....	795,159	143,766
Total	8,061,739	275,356,508	233,805,663

CRUDE.

COUNTRIES.	Week Ending Sept 30. Gals.	Jan. 1 to Sept. 23, 1889. Gals.	Jan. 1 to Sept. 24, 1888. Gals.
Argentine Republic	.....	.....	.....
Australia	.....	.....	.....
Austria	.....	674,572	.....
Belgium	.....	.....	.....
Brazil	.....	918	.....
British Guiana	.....	.....	.....
British North America	.....	.....	.....
British West Indies	.....	.....	248
Chili	.....	.....	.....
China	.....	532,350	.....
Central America	.....	100	.....
Cuba	.....	2,516,085	2,218,243
Danish West Indies	.....	1,095	.....
Dutch West Indies	.....	.....	.....
England	.....	8,085	.....
France	403,190	23,051 965	16,745,822
Germany	.....	3,778,357	1,230,508
Hawaiian Islands	.....	.....	.....
Gibraltar	.....	162,560	.....
Mexico	.....	2,287,592	991,510
Norway and Sweden	.....	170,805	187,230
Spain	.....	4,149,195	7,548,282
Uruguay	.....	.....	.....
Venezuela	.....	205	.....
Total	403,190	15,377,610	28,643,740

NAPHTHA.

COUNTRIES.	Week Ending Sept 30. Gals.	Jan. 1 to Sept. 23, 1889. Gals.	Jan. 1 to Sept. , 24 1888. Gals.
Africa	.....	.....	.....
Algiers	.....	.....	.....
Argentine Republic	.....	7,210	1,625
Australia	.....	.....	48
Belgium	.....	1,846,280	223,244
Brazil	.....	7,350	12,540
British North America	.....	622	1,800
British West Indies	.....	12	.....
Central America	.....	.....	.....
Chili	.....	.....	237
Cuba	.....	25,000	.....
Denmark	.....	.....	.....
England	536,887	2,879,968	1,923,208
France	312,820	2,994,288	2,267,163
Germany	.....	1,420,702	525,360
Hayti	.....	.....	.....
Ireland	71,629	.....	7,659
Mexico	.....	5,980	.....
Norway and Sweden	.....	753,382	348,873
Portugal	.....	2,185	79,700
Russia	.....	23,223	.....
Turkey	.....	.....	.....
Uruguay	.....	180	.....
Venezuela	.....	.....	.....
Total	921,336	8,416,493	5,406,457

Receipts Sept. 7 to Sept. 14 ...	56,614	153,158
Rec'ts July 1, '89, to Sept, 14, '89.	1,089,606	973,885
Shipments Sept. 7 to Sept. 14 .	185,700	100,220
Shp'ts July 1, '89, to Sept. 14, '89...	1,052,138	803,939

At London the statistical situation on the same date was made up as follows:

	1889.	1888.
Stock, Sept. 14.....	155,063	150,565
Afloat "	24,354	7,000
Loading "	69,600	83,700
Total.....	249,017	241,265
Receipts Sept. 7 to Sept. 14	20,874	1,460
Rec'ts July 1, '89, to Sept. 14, '89...	188,815	110,245
Shipments Sept. 7 to Sept. 14..	19,484	14,518
Shp'ts July 1, '89, to Sept. 14, '89..	120,342	104,477

Petroleum Charters.

Following is a list of vessels chartered and oading or to load petroleum at New York Philadelphia, Baltimore and Boston:

	Bbls Refd
NEW YORK.	
May 13	
Am shp John A Briggs, Japan, 35c.....cs	75,000
May 23	
Br shp Lord Templeton, Calcutta, 25c.cs	80,000
June 21.	
Br bk Gulf Stream, Java, 33c, 34c, 35c..cs	50,000
June 22	
Br shp Bramblety, Calcutta, p t.....cs	60,000
June 24	
Br sh Falls of Halladale, Calcutta, 25c.cs	80,000
June 27	
Br shp Siren, Calcutta, 25c.....cs	50,000
July 11	
Ger sh Baltimore, Cont, pt.....	7,500
July 20	
Nor bk P M Petersen, Baltic, p t	7,400
Aug 2	
Ger bk Western Chief, Cont, pt.....	5,000
Ger bk Hampton Court, Continent, pt..	6,500
Ger shp Union, Hamburg, 3s 10¼d	7,000
August 6	
Br shp Blair Athole, Java, 33c..... .cs	60,000
August 13	
Br shp Tilkhurst, Calcutta, p t.....cs	58,000
August 27	
Nor bk Olbers, Baltic, 4s 6d.....	5,000
August 29	
Ger sh Helene, Hamburg, 1s 5¼d.....	8,000
August 30	
Am sh Mary L Cushing, Calcutta, 27c..cs	55,000
Br sh Lord Dufferin, Calcutta, 27c.....cs	65,000
Nor bk Vemeria, Danish port, pt.....	6,000
Sept. 3	
Nor bk Vanadis, Drontheim, 4s 6d.....	2,800
Nor sh N B Palmer, Hamburg, 3s 6d.....	6,500
Sept. 6	
Am sh John E Sayre, Calcutta, 27c. ..cs	60,000
Br sh Ben Crushan, Calcutta, 26¼c....cs	55,000
Nor bk Forsoget, U K or Baltic, p t.....	4,000
Br sh Munster, British Ch, p t.....	9,000
Br bk Jennie Parker, French port, 4s, cde	6,000
Sept. 9	
Br bk Nimbus, Havre, 3s 9d.....cde	7,200
Sept 10	
Br bk Low Wood, Blaye, 3s 10¼d. ....cde	6,600
Br shp Argo, Calcutta, 26¼c .....cs	50,000
Br bk Arnguda, Formosa or Hong Kong pt.. .. . .cs	37,000
Sept 11	
Br shp Euphemia, Japan, pt.....cs	50,000
Sept 13	
Ger shp Union, Continent, p t.....	7 700
It bk Gio Batta Repetto, Penang or Singapore, 31, 32c. .....cs	45,000
Sept 14	
Br bk Mohawk, Liverpool, 3s.....	8,500
Sept 16	
Nor bk Alice, U K or Cont, p t...	6,000
Ger bk Western Chief, Hamburg, p t....	4,600
Ger shp Dora, Marseilles, p t..... ...cde	7,600
Am shp Wm H Starbuck, Bristol ch, p t	8,500
Br shp Albania, Calcutta, 26¼c.....cs	60,000
Sept 17	
Ger bk Alma, Liverpool, 3s 1½d.	5,800
Aus bk Arceduea Rodolpho, e c Ireland, 3s 9d....	5,300
Br bk Argyll, Havre, 3s 6d.. .....cde	7,500
Ger bk Betty, Cette, 3s 9d.... . .....cde	5,000
Sept 18	
Am sh Hamilton Fish, Marseilles, p t cde	10,000
Br bk Alex Laurence, Madras, p t. ...cs	42,000
Br sh Lord Templeton, Calcutta, pt..cs	70,000
Nor bk Christine Edela, Cardiff, 3s 6d	5,500
Sept 20	
Nor bk Columbus, Dunkirk, 4s.....cde	5,400
Nor bk Inga, Rotterdam, 3s 1d.....	9,000
Br shp Loando, Liverpool, 3s.....	9,000
Br bk Highlander, Liverpool, 3s.....	8,000
Sept 21	
Br bk Levuka, London, p t.... .....lub	8,500
Sept 23	
Nor sh Haugesund, U K, p t.....	6,700
Br bk Sarah Chambers, London, 2s 10½d.	6,000
Ger bk Astronom, Boadeaux, 3s 9d...cde	5,400
Sept 24	
Br str Albans, Pireas, pt..... .....cs	52,000
Br str Rock light, U K or Cont, o's acc, tank.....	24,000
Br bk Artisan, Blaye, pt..... cde	7,000
Sept 25	
Am sh Lucille, Hong Kong, 34c.. .....cs	50,000
Sept 26	
Br sh Helga, Shanghae, 41c.....cs	70,000
Am bk Importer, Bremen, 3s 1½d....cde	7,200
Am sh Daniel I Tenney, Hong Kong, 34c..... .....cs	60,000
It bg Fortunata, Algiers, pt.....cs	15,000
Sept 27	
Ger sh Alice, London, 2s 10d.....	10,000
Ger sh Columbus, Japan, 35c .. ..cs	60,000
Ger bk Hampton Court, Hamburg, pt...	6,500
Nor bk Maury, U K or Cont, pt	3,500
Sept 28	
Ger str Wilkommen, Bremen, o's acc, tank.	25,000
Sept 30	
Ger sh Georg, Havre, 3s 3d.....cde	7,200
Br sh Wynnstag, Calcutta, 26c.... .... cs	65,000
PHILADELPHIA	
June 26	
Aus bk Trojedinca, Fiume, p t.....	3,000
June 29	
It bk Confidenza, w c Italy, 22½c.....cs	20,000
July 19	
Br sh Ben Douren, Japan, 34c.....cs	80,000
July 30	
Nor bk Dronning Sophie, Sables d'Oloune, 4s 6d..... ....cde	2,900
August 2	
Ger ship Lizzie and Eugenie, Cont, pt...	8,000
Br ship Sapphire, Continent, pt.....	8,000
Nor bk Hebe, Ger Baltic, 4s 5d	3,000
August 10	
Am shp Francis, Japan, p t .. ..cs	50,000
Sept. 4	
Ger str Paula, Hamburg, o's acc, tank...	25,000
It bk Luigia Accame, Medit, p t.....cs	37,000
Sept. 9	
Br bk Aneroid, Dunkirk, p t..... ...cde	6,000
For bk Beta, U K, or Cont, p t.....	5,400
Sept. 11	
Ger sh Cleopatra, Hamburg or Amsterdam, 3s	7,500
Sept. 13	
Br bk John Hickman, Bristol, 3s.....	8,000
Ger str Lumen, Antwerp, o's acc, tank..	2?,000
Sept. 16	
Nor bk Salatiga, St Loubes, 3s 10¼d .cde	6,600
Sept 17	
Am shp Wm J Rotch, Japan, p t . . . cs	60,000
Sept 18	
It bk Valanti di Dio, Medit, p t..... cs	32,000
It bk Giacamino, Italy, 21c. .....cs	20,000
Sept 19	
It bk Teresa Lo Vico, Palermo, 20c....cs	20,000
Sept 20	
Nor shp Agra, Bremen, 3s 6d.....nap	6,000
Br bk Iodine, Oporto, p t.. ..... cs	17,000
Br bk Sodium, Oporto, 22c.....cs	17,000
Br bk Salina, Sables d'Olonne, 4s 9d..cde	2,000
Sept 21	
Span bk Antonio sia, Barcelona, p t.cde	2,500
Sept 24	
Ger str Minister Maybach, Bremen, o's acc, tank.....	22,(0)
Sept 25	
Am sh John Currier, Japan, 38c..... .cs	72,000
Am sh San Joaquin, Japan, 38c... .....cs	60,000
Sept 26	
Ger sh Henrietta, Japan, 27c .....cs	50,000
Sept 27	
Ger str Elise Marie, Hamburg, o's acc, tank	30,000
Dtch bk Jan Meichers, Havre, 3s 3d.....	6,0 0
Sept. 28	
Ger bk Libertas, Lisbon, 4s	2,700
Br bg Loyalist, Plymouth, 3s 9d	2,200
Sept 30	
Ger sh Barbarossa, Antwerp, 2s 9d.....	8,500
Ger str Pollux, Antwerp, o's acc, tank..	12,000
BALTIMORE	
Sept 16	
Ger shp Lizzie & Eugenie, Hamburg, p t	8,0 0
Sept 20	
Br bk Privateer, Ancona, 4s 9d.....resid	5,500
BOSTON	
May 21	
Br shp Ben Venue, Calcutta, 24½c.....cs	80,000
Aug 28	
It bk Rosina, Seville or Alicante, 22c .... cs cde	14,000
Sept 2	
Br bk Kedron, Rouen, 4s 3d.....cde	7,500
It bk Salvatore, Seville or Santander, 22c... ....cs cde	15,000
Nor bk Rival, U K or Baltic, p t.....	1,800

Clearances of Petroleum.

Following are the clearances of petroleum from the ports of New York, Philadelphia Baltimore, Boston and San Francisco on the dates named. Refined, unless otherwise specified:—

Sept 24

Am str Caroline Miller, Cape Hayti, 2 bbls
Am str Caroline Miller, Pt du Paix, 10 cs
Br sch Victory, Nassau, 2 bbls
Br sh Palgrave, Calcutta, 132,000 cs
Br str Broombaugh, Rouen, 801 bbls cde
Br str Monmouthshire, Shanghai, 43,300 cs
Br str Monmouthshire, Kobe, 2,000 cs
Br str Monmouthshire, Hong Kong, 550 cs
Nor bk Arracan, Danzig, 4,423 bbls

Sept 25

Am str Caracas, Maracaibo, 265 cs
Am str Caracas, Curacoa, 4 bbls, 205 cs
Am str Caracas, La Guayra, 10 cs
Am str Caracas, Pto Cabello, 2 bbls, 225 cs
Am str Caroline Miller, Cape Hayti, 3 cs
Am str Colon, Aspinwall, 100 cs
Am str Colon, Colon, 200 cs
Am str Colon, La Libertad, 10 cs
Am str Colon, La Union, 50 cs
Am str Colon, Tumacoa, 10 cs
Br str Alvo, Kingston, 16 bbls, 890 cs
Br str Alvo, Aux Cayes, 2 bbls, 105 cs
Br str Alvo, Jeremie, 60 cs
Br str Rocklight, Bremen, 1,252,000 gls
Br str Hondo, Greytown, 280 cs
Br str Hondo, Belize, 15 bbls, 190 cs
Br str Hondo, Livingston, 5 bbls, 65 cs
Nor bk Vorwarts, Dronheim, 2,678 bbls

Sept 26

Am sch Zamora, Pt a Pitre, 300 cs
Br bk Canning, Santos, 18,500 cs
Br bk Gaerwen, Pt Elizabeth, 1,500 cs
Br sh Hectanooga, Liverpool, 200 bbls, 5,520 bbls nap
Br sh Arbella, Dunkirk, 7,056 bbls cde
Br str Basil, Para, 20 bbls, 2,045 cs
Br str Basil, Ceara, 282 cs
Br str Basil, Maranham, 420 cs
Br str Bermuda, Antigua, 52 cs
Br str Bermuda, St Croix, 10 bbls, 10 cs
Br str Bermuda, St Kitts, 20 cs
Br str Bermuda, Domenica, 6 cs
Br str Bermuda, St Lucia, 10 cs
Ger sh Johann Frederick, Hamburg, 8,134 bbls
It bk Progresso, Buenos Ayres, 14,320 cs
Nor bk P A Munich, Cork, 2,453 bbls

Sept 27

Am sch Geo Bird, Macoris, 224 cs
Br bk James Stafford, London, 496 bbls 4,950 bbls nap
Br sch Galena, Windsor, N S, 650 bbls
Br sch Daphne, St John, N B, 10 bbls
Br str Atalanta, Montego Bay, 425 cs
Br str Belair, Trinidad, 340 cs
It bk Michele, Gibraltar, 6,000 cs
Nor bk Candeur, Drammen, 2,571 bbls
Nor bk Salome, Pt Natal, 1,550 cs

Sept 28

Am bg Havilah, Pt Elizabeth, 2,500 cs
Br bk Chignecto, Rio Janeiro, 12,300 cs
Br sch Rob & Harry, St John, N B, 260 bbls
Br sch Avalon, Twillingate, N. F, 100 bbls
Br sch Berma, St Stephens, N. B, 300 bbls
Fren bk Henriette, Hobart, 2,700 cs
Fren bk Henriette, Brisbane, 6,500 cs
It bk Orab, Alexandria, 27,500 cs
Nor bk Onward, Cork or Falmouth, f o, 2,080 bbls ref, 1,400 bbls nap

Sept 30

Am bg Pearl, Georgetown, 500 cs
Am str C of Alexandria, Progreso, 220 cs
Am str C of Alexandria, Havana, 295 cs
Br sh Buckingham, Calcutta, 110,000 cs
Br str President Garfield, Bombay, 61,387 cs
Br str Circassian Prince, Antwerp, 1,290,000 gls
Br str Ailsa, Savanilla, 2 bbls, 354 cs
Br str Ailsa, Carthagena, 1,004 cs
Br str Ailsa, Pt au Prince, 200 cs
Dan bk Arica, St Thomas, 2 bbls, 358 cs
Nor bk Figaro, Rouen, 6,135 bbls nap
Sp str Habana, Sta Marta, 312 cs
Sp str Habana, La Guayra, 1,600 cs

PHILADELPHIA

Sept. 21

Br sh Ellerslie, Havre, 9,011 bbls cde
It bk Cattolico, Genoa, 39,775 cs

Sept 24

Str Hans & Kurt, Hamburg, 1,000,000 gls
Am bg Amy A Lane, Dutlin, 4,290 bbls
It bk Rosa C. Cagliari f o, 22,851 cs

Sept 26

Bk Lindesnaes, Calais, 270,244½ gls cde, 278 bbls cde

Sept 27

It bk Italia, Toronto, 20,350 cs
It bk Pellicano, Genoa, 38,100 cs

SAN FRANCISCO

Sept 13

C D Bryant, Honolulu, 3.0 cs

Sept 14

San Bias, Cent Am, 296 cs
San Bias, Mexico, 200 cs

BOSTON

Sept 23

Bg Lucy W Snow, Cape Verde Islands, 300 cs

Sept 24

Sch Precursor, Barrington, etc, 2 bbls 1 hf bl, 1 c
Str Yarmouth, Yarmouth, 4 bbls
Shp Independence, Valparaiso, 11,000 cs

Sept 25

Sch G F Day, Five Islands, 12 bbls
Sch Kalevale, Pictou, 85 bbls
Sch Melinda, Maitland, 100 bbls
Sch Coila, Halifax, 11 bbls

Sept 26

Sch Anna May, Burges, 5 bbls

Sept 27

Sch Stanley Mac, Grand Narrows, 232 bbls

Imports of Empty Petroleum Barrels.

NEW YORK.

738, G F Laugh & Co, T H A Pitt, Bermuda
450, Lombard A & Co, Saratoga, Vera Cruz
1,000, L Johnson & Co, Candido, Lisbon

PHILADELPHIA

200, order, V de Guardia, Cette
2,216, order, Atalanta, Hamburg

Window Glass Makers' Profits.

A gentleman who was formerly a manufacturer of window glass, said to a REPORTER representative when the subject of the glass troubles were under discussion, that he was not surprised that so many of the manufacturers were dissatisfied with the scale of wages arranged by the committees representing the manufacturers and the workers. He was surprised, however, to know that any of the window glass makers should have been satisfied to grant the increase demanded by the workers, knowing as they surely must, that such acquiesence will result in a positive increase of their losses during this season.

"The difference between selling prices and the cost of production even under the old schedule of wages, must have been exceedingly small, if I know anything about the business" said this gentleman. "I believe it can be easily demonstrated that the American manufacturer selling his glass at 80 and 5 per cent. off the list, the current market rate—and they are certainly not getting more than that—will be out of pocket on every box he sells, or at the best will make a profit of but a few cents. Take for instance the second bracket of third quality single, in which a very large quantity of glass is sold. The list price is $10 25 per box, but after 80 and 5 per cent. have been deducted, and the two per cent discount for cash taken off, the net price is $1 91 per box. Now from this must be ducted the cost of labor,—which comes first as the heaviest item of expense,—and figuring on the basis of wages when I was in the business and that they were much lower then than now, that would amount to $1 10 leaving 81c. per box. Out of this the manufacturer must pay for fuel, soda ash, sand, lime, &c., for boxes and straw to pack with, he must pay freight, and then there is insurance and other incidentals connected with a manufacturing business. When he has paid for all these how much of the 81c will be left? And yet there are manufacturers, and many of them, who have not hesitated to add to these expenses, with no prospect of getting any higher prices for their glass than they are getting now."

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IMPORTS, EXPORTS, DOMESTIC RECEIPTS, Etc.

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION.

Week ending Sept. 28.

ACID—2 cs, 100lb, McKesson & R, Sorrento, Hamburg
2 cs, Meyer Bros Drug Co, Spain, Liverpool
5 cs, Schering & G, Rhaetia, Hamburg
CARBOLIC—40 dms, A Barnett & Co, C of Berlin, L'pool
1 cs, 100lb, McKesson & R, Sorrento, Hamburg
5 cs, Schering & G, Rugia, Hamburg
32 cs, Scherring & G, Rhaetia, Hamburg
PHOSPHORIC—12 cs, Rogers & P, Rugia, Hamburg
6 cs, Schering & G, Rhaetia, Hamburg
PYRO—1 cs, Schering & G, Rugia, Hamburg
7 cs, Schering & G, Rhaetia, Hamburg
SAL—30 cs, Schering & G, Fulda, Bremen
10 cs, Schering & G, Rhaetia, Hamburg
ALBUMEN—100 cs, Pickhardt & K, Rugia, Havre
ALIZARINE—1 ck, Schlze-Berge & K, Westernland, Antwerp
5 cks, 1,441lb, A Klipstein, Westernland, Antwerp
5 cks, Pickhardt & K, Amsterdam, Amsterdam
ALKANET ROOT—4 bls, 1,400lb, Lehn & F, Bohemia, Hamburg
ALUM—32 cks, 23,073lb, A Klipstein, Westernland, Antwerp
32 cks, 25,526lb, Pickhardt & K, Amsterdam A'dam
ALUMINA HYDRATE—18 cks, 21,888lb, Healy & E, Buffalo Hull
SULPH—500 cks, 150,000lb, E H Watson, Westernland, A'p
AMMONIA CARB—32 pgs, 9,632lb, J L & D S Riker, Alaska, L'l
28 cks, 10,669lb, Roesseler & H, Chem Co, Rhaetia, H'b'g
MURI—11 bbls, Rogers & P, Rugia, Hamburg
SAL—18 bbls, 13,472lb, P Bauer & Co, C of Berlin, Liverpool
ANILINE COLORS—10 cs, 1,100lb, A Klipstein, Umbria, L'p'l
1 kg, R Holliday's Sons, Alaska, Liverpool
10 cks, 4,200lb, J Campbell & Co, Alaska, Liverpool
5 cks, C Georgi, Fulda, Bremen
4 cks, J Campbell & Co, Westernland, Antwerp
20 pgs, 3,005lb, J J Keller & Co, Westernland, Antwerp
38 cks, Schultze-Berge & K, Westernland, Antwerp
25 cks, 1 cs, E Schlbach & Co, Westernland, Antwerp
35 cks, 34 cs, A Klipstein, Westernland, Antwerp
47 pgs, Lutz & M, Rhaetia, Hamburg
57 cks, 20 cs, Boston D & Chem Co, Ems, Bremen
2 cks, 5 cs, Schultze Berge & K, Westernland, Autwerp
16 cks, C Georgi, Amsterdam, Amsterdam
66 cks, Pickhardt & K, Amsterdam, Amsterdam
27 pgs, 2,700lb, Sykes & S, La Bretagne, Havre
14 pgs, 2,000lb, W J Matheson & Co, La Bretagne, Havre
11 cks, 1,800lb, W J Matheson & Co, Lahn, Bremen
OIL—29 dms, 22,226lb, Roessler & H Chem Co, Westernland, Antwerp
8 cks, Schulze Berge & K, Westernland, Antwerp
38 dms, Pickhardt & K, Westernland, Antwerp
1 dm, 1,100lb, Sykes & S, La Bretagne, Havre
SALTS—50 cs, Schulze-Berge & K, Westernland, Antw'p
26 cks, 5,570lb, A Klipstein, Westernland, Antwerp
22 cks, Pickhardt & K, Westernland, Antwerp
ANNATTO SEED—4 bbls, E Myers & Co, Tyrian, St Ann's Bay
ARCHIL—15 cks, R Holliday's Sons, Alaska, Liverpool
20 bbls, W J Matheson & Co, Westernland, Amtwerp
20 cks, 5,770lb, P H Karcher & Co, Rhaetia, Hamburg
10 bbls, 4,200lb, Sykes & S, La Bretagne, Havre
ARGOLS—15 cks, 17,184lb, C Pfizer & Co, C of Berlin, Liverpool
83 cks, 87,802lb, C Pfizer & Co, C of Paris, Liverpool
79 cks, 87,786lb, C Pfizer & Co, Spain, Liverpool
339 pgs, 113,022lb, C Pfizer & Co, Cyprus, Messina
ARNICA FLOWERS—39 bls, R Brueckner & Co, Buffalo, Hull
ARROWROOT—30 bbls, 2,812lb, R Tucker & Co, Orinoco, Hamilton
ARS ENIC—5 kgs, Lehn & F, Rhaetia, Hamburg
ASPHALTUM—37 pgs, 25,916lb, Balsells & Co, Habana, Havana
BARIUM OX—30 cs, Rogers & P, Rugia, Hamburg
BARYTES CARB—50 tns, Hammill & G, Othello, Newcastle
BAY LEAVES—21 bls, Dodge & O, Muriel, Roseau
2 bls, 572lb, J E Walker, Finance, St Thomas
RUM—15 pgs, 696 gls, Lazell, D & Co, Finance, St Thomas
5 bbls, 238 gls, Tarrant & Co, Finance, St Thomas
BELLADONNA—13 bls, M Koenigsheim, Buffalo, Hull
3 bls, 660lb, Lehn & F, Bohemia, Hamburg
2 bls, 440lb, Lehn & F, Rhaetia, Hamburg
BISMUTH—3 bbls, 4 cs, C Pfizer & Co, Umbria, Liverpool
BITTERWOOD—407 pcs, E Myers & Co, Tyrian, Kingston
BLEACH—88 cks, 112,612lb, E Hill's Son & Co, C of Berlin, L'pool
206 cks, 223,960lb, E Hill's Son & Co, Othello, Newcastle
101 cks, 111,888lb, Perkins, G & Co, Spain, Liverpool
BRIMSTONE—600 tns, J L Morgan & Co, Alexandria, Girgenti
650 tns, A S Malcolmson, Cyprus. Licata
700 tns, Parsons & P, Cyprus, Licata
200 tns, M Leibman, Cyprus, Licata
BRONZE POWDER—3 cs, A Sartorius & Co, Fulda, Bremen
8 cs, Fuchs & L, Fulda, Bremen
5 cs, Piper, D & Co, Fulda, Bremen
8 cs, K Schmidt & Co, Fulda, Bremen
13 cs, T Reissner, Fulda, Bremen
10 cs, Gerstendorfer Bros, Fulda, Bremen
1 cs, J Marsching & Co, Lahn, Bremen
1 cs, Berger & W, Rhaetia, Hamburg
BUCKTHORN BARK—11 bls, R Brueckner & Co, Buffalo, Hull
BURGUNDY PITCH—100 tubs, 11,025lb, W H Schieffelin & Co Amsterdam, Amsterdam
BUTTON LAC—33 cs, Ralli Bros, L Dufferin, Calcutta
48 cs, C Neus, Umbria, Liverpool
CACAO BUTTER—15 cs, Reed & C, Aurania, L'pool
7 cs, 1,568lb, A E Reiman, Britannic, Liverpool
CACHOU DE LAVAL—10 cs, 1,100lb, Sykes & S, La Bretagne Havre
CALABAR BEANS—3 bls, R Brueckner & Co, Buffalo, Hull
CALAMUS—1 cs, 110lb, M Koenigsheim, Buffalo, Hull
CANARY SEED—150 bgs, 33,000lb, P Mirrnhein, Cyprus, Messina
CANTHARIDES—8 bbls, Stallman & F, Rugia, Hamburg
CARAWAY SEED—36 bls, 3,900 lb, G W Sheldon & Co, Obdam Rotterdam
CARLSBAD WATER—99 cs, Eisner & M Co, Metcalf, Hamburg
CASSIA BUDS—122 cs, Stallman & F, Buffalo, Hull
LEAVES—25 cs, Stallman & F, Rugia, Hamburg
CASTOR SEED—1 bg, J H Rossbach & Bro, Finance, Bahia
CEMENT—800 cks, Dickinson Bros & K, Rugia, Hamburg
1,120 cks, E Thiele, Sorrento, Hamburg
1,000 cks, J Brand, Denmark, Havre
246 bbls, A C Babson, Rugia, Hamburg
560 bbls, A C Babson, Georg, Hamburg
2,240 cks, E Thiele, Georg, Hamburg
50 bbls, Hammill & G, Circassia, Glasgow
1,000 cks, E Thiele, Westernland, Antwerp
25 bbls, C B Richard & Co, Amsterdam, A'dam
500 cks, J Brand, Sorrento, Hamburg
500 cks, Batjer & M, Othello, Newcastle
560 cks, J W Binney, Othello, Newcastle
1,340 bbls, Haebler & Co, Westernland, Antwerp
1,849 bbls, Dickinson Bros & K, Rhaetia, Hamburg
CHALK—10 cs, 2,240lb, Tyler & F, Spain, L'pool
CHAMOIS—1 cs, R Young, La Gascogne, Havre
1 cs, T L Lutkins, Rhaetia, Havre
2 cs, J S Rockwell, Britannic, 'pool
CHAMOMILES—2 cks, 335lb, R Brueckner & Co, Buffalo, Hull
20 bls, Stallman & F, Westernland, Antwerp
CHEMICALS—2 cs, R Kug, Rugia, Hamburg
2 cs, Schering & G, Rugia, Hamburg
7 cs, McKesson & R, Sorrento, Hamburg
18 cks, A Klipstein, Rugia, Hamburg
7 bbls, C Pfizer & Co, Rugia, Hamburg
6 cs, W H Schieffelin & Co, Trave, Bremen
11 cs, Steglich & B, Trave, Bremen
2 cs, Steglich & B, Ems, Bremen
20 cs, Lutz & M, Lahn, Bremen
3 cs, Schering & G, Rhaetia, Hamburg
55 cks, 26 cs, T Weicker, Obdam, R'dam
46 cks, 131 cs, T Weicker, Amsterdam, A'dam
CHINA CLAY—200 cks, L A Salomon & Bro, Spain, L'pool
250 bgs, Hammill & G, Brinannic, L'pool
CHINESE BLUE—5 cks, 5 kgs, H Kohnstamm & Co, Alaska, L'pool
CINCHONA BARK—87 bls, 19,056lb, McKesson & R, Amsterdam Amsterdam
CINNAMON—50 bls, 5,000lb, J H Recknagel, Trave, Colombo
CLOVES—1,100 bgs, Carleton & M, C of Paris, L'pool
COCHINEAL—25 ser, 5,000lb, W R Peters & Co, Umbria, L'pool
COLORS—2 cs, A Sartorius & Co, Rugia, Havre
10 cks, 1,100lb, Gabriel & S, Sorrento, H'burg
12 bbls, 1,736lb, W A Brown & Co, Umbria, L'pool

1 cs, R Mayer & Co, Denmark, Havre
1 cs, R Mayer & Co, Fulda, Bremen
3 cks, G W Sheldon & Co, Obdam, R'dam
46 cks, 16 cs, Pickhardt & K, A'dam, A'dam
3 cks, Berger & W, Rhaetia, H'burg
CONIUM SEED—1 bl, 220lb, M Koenigsheim, Buffalo, Hull
CORIANDER SEED—50 bls,11,000lb,F H Leggett & Co,Victoria Trieste
CORK—24 bls, Colgan & Co, Alaska, L'pool
SQUARES—8 bls, Colgan & Co, Alaska, L'pool
WOOD—10 bls, F G Strohmeyer & Co, Candido, Lisbon
CROCUS—20 cks, J L Smith & Co, Buffalo, Hull
14 cks, 8,096lb, G A & E Meyer, Buffalo, Hull
CUBEBS—2 bgs, R Brueckner & Co, Rugia, Hamburg
CUTCH—738 bgs, 115,396lb, E Hill's Son & Co, L Dufferin, C'ta
262 bgs, 40,891lb, W F Milton & Co, L Dufferin,Calcutta
CUTTLEFISH BONE—20 pgs, 2,165lb, Stallman & F, Circassia Glasgow
DEXTRINE—66 cks, 15,194lb, C Morningstar & Co, Sorrento,H&g
DIGITALIS LEAVES—12 bls, 2,162lb, M Koenigsheim, Buffalo, Hull
DRUGS—4 pgs, A O Schoonmaker, Alaska, Liverpool
13 bgs, Stallman & F, Rugia, Hamburg
4 pgs, Meyer Bros Drug Co, Spain, Liverpool
2 cs, Lehn & F, Rhaetia, Hamburg
DUTCH METAL—2 cs, A Sartorius & Co, Fulda, Bremen
6 cs, I Vought & Co, Fulda, Bremen
5 cs, Fuchs & L, Fulda, Bremen
3 cs, K Schmidt & Co, Fulda, Bremen
1 cs, T Riessner, Fulda, Bremen
2 cs, Gerstendorfer Bros, Fulda, Bremen
1 cs, J Marsching & Co, Lahn, Bremen
DYEWOOD EXTRACT—10 cks, 5,042lb, Schulze-Berge & K Westernland, Antwerp
ERGOT—1 bg, R Brueckner & Co, Rugia, Hamburg
FLOWERS—2 pgs, McKesson & R, Sorrento, Hamburg
FUSTIC—7,400lb, W L Rathbun & Co, C of Para, Aspinwall
EXT—35 cks, Banning, B & Co, La Gascogne, Havre
GALL EXT—10 cks, 5,049lb, J J Keller & Co, Westernland Antwerp
GELATINE—10 cs, Lachman & J, Edam, Rotterdam
20 cs, 2,673lb, M Zeller, Amsterdam, Amsterdam
GINGER—10 bbls, W Hoffman, Seneca, Havana
20 bbls, 2,785lb, A S Lascelles & Co, Tyrian, Kingston
26 bgs, Barclay Mfg Co, C of Berlin, Liverpool
7 bbls, W Hoffman, Saratoga, Havana
GLASS PLATE—2 cs, 712ft, J Zahn, Fulda, Bremen
13 cs, 3,733ft, Heroy & M, Alaska, Liverpool
15 cs, 1,988ft, J Kahn, Westernland, Antwerp
27 cs, 8,593tt, Heroy & M, Westernland, Antwerp
3 cs, 1,181ft, Holbrook Bros, Amsterdam, Amsterdam,
50 cs, 13,339ft, H H Cahn, Westernland, Antwerp
17 cs, 12,401ft, J A Waller, Britannic, Liverpool
WINDOW—3,595 pgs, 218,410lb, Vanhorne, G & Co, Westernland, Antwerp
916 cs, 62,990lb, T W Morris & Co, Westernland, Antw'p
1,417 cs, 96,690lb, Holbrook Bros, Westernland, Antw'p
1,378 cs, 77,150lb, Heroy & M, Westernland, Antwerp
509 cs, 29,470lb, Holbrook Bros, Westernland, Antwerp
25 cs, Avery, P & Co, Westernland, Antwerp
108 cs, J Fitzpatrick & Co, Westernland, Antwerp
73 cs, 5,840lb, T W Morris & Co, Spain, Liverpool
71 cs, 11,537lb, Holbrook Bros, Spain, Liverpool
20 cs, 2,000lb, P Semmer G Co, Spain, Liverpool
GLUE—70 bgs, A K Gardiner & Bros, Buffalo, Hull
40 cks, 39,613lb, B W Jones, Buffalo, Hull
54 cks, 26,776lb, A Hodge & Co, Buffalo, Hull
75 bgs, 8,400lb, S Isaacs & Co, C of Paris, L'pool
118 bgs, 13,216lb, A K Gardiner & Bro, Llandaff City, Bristol
28 cks, G W Sheldon & Co, Gloucester City, H'burg
5 cks, 2,934lb, A K Gardiner & Bro, Britannic, L'pool
GLYCERINE CDE—48 dms, 51,125lb, Marx & R, Rugia, H'burg
20 dms, 21,671lb, Marx & R, Denmark, Havre
34 dms, 36,987lb, E Puig, Herman Cortez, Havana
10 dms, 10,876lb, J E Schweizer & Co, Buffalo, Hull
25 dms, 27,306lb, Marx & R, Spain, L'pool
30 dms, 32,890lb, Marx & R, C of Paris, L'pool
REF—10 cs, 600lb, Schering & G, Rugia, Hamburg
2 cs, 100lb, Hall & R, C of Berlin, L'pool
11 cs, 1,050lb, Schering & G, Rhaetia, Hamburg
GUM—5 cs, 2,353lb, Sawyer, W & Co, Greece, London
CHICLE—24 bgs, L Brandeis & Co, Habana, Tuxpan
8 bgs, 1,540lb, L Monjo Jr & Co, Habana, Tuxpan
COPAL—15 pgs, 2,371lb, G A Alden & Co, A'dam, A,dam
MASTIC—4 cs, 414lb, Tyler & F, Spain, L'pool
SENEGAL—150 bgs, 30,629lb,Thurston & B,Bothnia,L'pool
4 bgs, 882lb, Thurston & B, La Gascogne, Havre
11 pgs, 2,684lb, D E Green, La Gascogne, Havre
GYPSUM—100 bbls, 77,016lb, G A & E Meyer, Othello, N'castle
100 cks, 79,332lb, G A & E Meyer, Spain, L'pool
HELIOTROPINE—3 cs, L Bernard & Co, La Gascogne, Havre
HENBANE—11 bls, M Koenigsheim, Buffalo, Hull
3 bls, 500lb, Lehn & F, Bohemia, Hamburg
HERBS—10 bls, Peek & V, Buffalo, Hull
HOREHOUND—4 bls, 942lb, M Koenigsheim, Buffalo, Hull
INDIAN RED—10 cks, 14,077lb, G A & E Meyer, Buffalo, Hull
CARMINE—4 cks, Schulze-Berge & K, Westernland, Ant
EXT—10 cks, 6,830lb, J C Bloomfield & Co, Alaska, L,pool
15 cks, 11,078lb, Pickhardt & K, Alaska, Liverpool
INDIGOTINE—3 cks, 510lb, J Cambell & Co, Alaska, L'pool
IODINE—15 bbls, 1,900lb, Watjen T & Co, C of Para, Aspinwall
IRON CARB—1 cs, 35lb, McKesson & R, Sorrento, Hamburg
OXIDE—52 cks, J L Smith & Co, Buffalo, Hull
75 kgs, 8,400lb, G A & E Meyer, Buffalo, Hull
SULPH—1 cks, 112lb, McKesson & R, Sorrento, Hamburg
LEECHES—4 cs, H Witte, La Gascogne, Havre
LICORICE ROOT—6 cs, 661lb, G Dreyfus, LaGascogne, Havre
LIME JUICE—35 pgs, 1,732 gls, T Wattson & Son, Muriel, Domenica
34 pgs, 1685 gls, Wattson & F, Muriel, Domenica
LIVERWORT—76 bls, 22,910lb, H H Warner & Co.Amsterdam, Amsterdam
LOGWOOD—150 tons, T H Messinger, Acacia, Miragoane
265 tons. Lyon & Co, L May, Jeremie
32½ tons, L Brandeis & Co, Saratoga, Campeache
LUPULIN—1 cs, 220lb, McKesson & R, Sorrento, Hamburg
MADDER—5 cks, Stamford Mfg Co, Amsterdam, A'dam
5 cks, N Y Dye Ext & Chem Co, Amsterdam A'dam
MALT EXT—22 cks, Tarrant & Co, Rugia, Hamburg
22 cks, Tarrant & Co, Rhaetia, Hamburg
MANURE SALTS—1,000 bgs, 223,520 lb,W R Peters & Co, Georg Bremen
MATCHES—205 cs, C Rosenstein & Co, Salerno, Gothenburg
MILK SUGAR—11 cs, 2,400 lb, Lehn & F, Rhaetia, Hamb'g
MINERAL SAND—10 cks, R Mayer & Co, Denmark, London
WAX—28 bgs, 4,400lb, F G Strohmeyer & Co, Rhaetia Hamburg
MULLEIN FLOWERS—1 cs, 116lb, Lehn & F, Bohemia, H'burg
MUSK—1 cs, L Bernard & Co, La Gascogne, Havre
MYRABOLAM EXT—15 cks, Beach & Co, Alaska, L'pool
OCHER—75 cks, 49,490lb, J L Smith & Co, Buffalo, Hull
OIL CASSIA—30 cs, 2,040lb, Stallman & F, Rugia, Hamburg
CINNAMON—2 cs, Dodge & O, Umbria, L'pool
COCOANUT—30 bbls, T M Marc, Britannic, L'pool
COD LIVER—50 bbls, 1,500 gls,W H Schieffelin & Co, Buffalo, Hull
ESSENTIAL—6 cs, Dodge & O, La Gascogne, Havre
26 cs, C Rockhill, La Gascogne, Havre
GERANIUM—3 cs, 234 lb, T T Grossmith, La Gascogne Havre
HARLEM—25 cs, Tyler & F, Amsterdam, A'dam
LEMON—1 cs, 20lb, A Geise, Fulda, Bremen
13 cs, 510lb, Meyer Bros Drug Co, Cyprus, Messina
ORANGE—1 cs, 12lb, A Geise, Fulda, Bremen
POPPY—6 bbls, 3,199lb, G A & E Meyer, La Gascogne, H'e
SANDAL—1 cs, T T Grossmith, La Gascogne, Havre
ORANGE LEAD—25 cks, 27,286lb, F A Reichardt, Denmark, H'e
25 bbls, 18,466lb, A B Ansbacher & Co, A'dam, R'dam
30 cks, 22,080lb, Pickhardt & K, A'dam, R'dam
PAINT—28 cks, O W Buck, Spain, L'pool
PERFUME—6 cs, R F Downing & Co, Umbria, L'pool
PHOSPHORUS—125 cs, 13,750lb, C Pfizer & Co, Buffalo, Hull
PIMENTO—625 bgs, 83,371lb, A S Lascelles & Co, Tyrian, K'ton
1,205 bgs, 177,025lb, G De Cordova & Co, Tyrian, K'ton
35 bgs, 4,765lb, Macy & D, Tyrian, Kingston
713 bgs, J E Kerr & Co, Bergenseren, Montego Bay
PLUMBAGO—152 cks, 52,423lb, Knudson, P & Co, Sorento, H'g
54 cks, 45,095lb, Knudson, P & Co, Georg, Bremen
POMADE—2 cs, 277lb, T T Grossmith, La Gascogne, Havre
POPPY MEAL—26 bgs, 3,250lb, A Merkel, Rugia, H'burg
POTASH CARB—30 cks, 31,451lb, C Cooper & Co, A'dam, R'dam
CHLO—100 kgs, 11,200lb, J L & D S Riker, C of Paris,L'pool
HYDRATE—17 cks, 22,155lb, J Lee & Co, Bohemia, H'burg
MURI—3,000 bgs, 672,084 lb, Heller, H & Co, Alice, H'burg
1,500 bgs, 336,000 lb, H H Salmon & Co, Hampton Court Hamburg
1,500 bgs, 336,000lb, H H Salmon & Co, Bohemia,H'burg
SALTS—20 cs, 2,200lb, McKesson & R, Sorrento, Hamburg
PULSATILLA—1 bl, 220lb, Lehn & F, Rhaetia, Hamburg
4 bls, 720lb, Lehn & F, Bohemia, Hamburg
PUMICE—48 cs, 8,828lb, H Behr & Co, Jafet II, Genoa
220 cks, 650 bgs, R J Waddell & Co, Jafet II, Genoa
50 cks, 1,150 bgs, T Van Amirige, Jafet II, Genoa
QUININE—25 cs, 12,500oz, J L & D S Riker, Bohemia, H'burg
ROOTS—3 bls, 600lb, McKesson & R, Sorrento, Hamburg
SABINA—1 bl, 266lb, Lehn & F, Bohemia, Hamburg
SAFFRON—1 cs, R Brueckner & Co, Rugia, Hamburg
49 bls, Eggers & H, Habana, Vera Cruz
SALT PETER—486 bgs, 111,996lb, A Hyndman, D I Tenny, Calcutta
SARSAPARILLA—9 pgs, Eggers & H, Hondo, Livingston
13 pgs, J Agostini, Hondo, Livingston
8 bls, 1,633lb, Bourne, G & F, Saratoga, Vera Cruz
SENNA—1 bl, R Brueckner & Co, Buffalo, Hull
15 bls, R Hillier's Son Co, Britannic, L'pool
SHELLAC—11 cs, A O Schoonmaker, Alaska, Liverpool
SOAP CASTILE—200 cs, 10,047lb, Liebman & B, Buffalo, Hull
525 cs, 21,600lb, Weaver & S, Ltd, India, Leghorn
SODA ASH—8 cks, 8,251lb, B P Ducas & Co, Bothnia, Liverp'l
203 cks, 336,792lb, E Yarnall & Son, L J Morse, L'pol
39 cks, 56,569lb, J Lee & Co, Othello, Newcastle
300 tcs, 538,987lb, Wing & Evans, Spain, Liverpool
ARSEN—10 cks, 10,681lb, J C Bloomfield & Co, Alaska, L'l
CAUSTIC—228 dms, 149,685lb, R Crooks & Co, Bothnia, L'l
200 dms, 130,000lb, E Hill's Son & Co, C of Berlin, L'l
150 dms, 97,500lb, Wing & E, Othello, Newcastle
180 dms, 113,324lb, E Hill's Son & Co, Othello, N'castle
250 dms, 165,238lb, J Lee & Co, Spain, Liverpool
100 dms, 62,968lb, J L & D S Riker, Britannic, Liverpoo
150 dms, 94,952lb, J Lee & Co, Servia, Liverpool
CHLO—25 kgs, 2,800lb, J L & D S Riker, C of Paris, L'p'l
NITRATE—9,861 bgs, W R Grace & Co, Grandee, Pisagua
SAL—72 cks, 28224lb, Wing & E, Spain, Liverpool
SULPH—29 cks, 11,066lb, C L F Rose, Buffalo, Hull
SPONGE—28 bls, A Isaacs & Co, Santiago, Nassau
112 bls, Lasker & B, Santiago, Nassau
66 bls. Lebess Sponge Co, Santiago, Nassau
13 cs, A Isaacs & Co, Rugia, Hamburg
2 cs, 1lb, A Isaacs & Co, Westernland, Antwerp
SUMAC—500 bgs, 81,570lb, Kennedy & M, Scaw Fell, Palermo
300 bgs, 47,959lb, Stamford Mfg Co, Sacrobosco, P'mo
EXT—10 cks, Banning B & Co, La Gascogne, Havre
TONKA BEANS—5 cs, Dodge & O, Augustine, Para
TURKEY RED—10 cks, 12,077lb, G A & E Meyer, Buffalo, Hull
TUSCAN RED—10 cks, 10,949lb, G A & E Meyer, Buffalo, Hull
ULTRAMARINE—20 cks, 11,023lb, C F Zentgraf, Westernland, Antwerp
11 cs, 2,201lb, A Klipstein, Westernland, Antwerp
1 csk, 220lb, Berger & W, Rhaetia, Hamburg
VANILLA BEANS—3 cs, H Martin, Rugia, H'burg
2 cs, L Bernard & Co, La Gascogne, Havre
1 cs, 130lb, L Monjo Jr & Co, Habana, Vera Cruz
78 cs, 11,581lb, P Harmony's Neph & Co, Habana, V C
VANILLIN—5 cs, L Bernard & Co, La Gascogne, Havre
VEGETABLE WAX—50 bgs, 5,378lb, Stallman & F, Rugia, H'g
VENETIAN RED—575 bbls, 225,200lb,E Hill's Son & Co, Othello, Newcastle
6 cks, 4,744lb, T S Todd & Co, Westernland, Antwerp
VERDIGRIS—4 cks, Rogers & P, A'dam, A'dam
WORMSEED—2 bls, Lehn & F, Bohemia, Hamburg
ZINC OXIDE—50 bbls, 11,025lb, J A & W Bird & Co, Westernland, Antwerp

WAREHOUSED.

ANILINE COLORS—5 cks, Schulze-Berge & K, Westernland Antwerp
17 cks, 17 cs, E Schlbach & Co, Westernland, Antwerp
16 cks, 1 cs,4,000lb,W J Matheson & Co,Rhaetia,H'burg
BAY RUM—13 pgs, 920 gls, McKesson & R, Finance, St Thomas
10 bbls, 452 gls, Thurber, W & Co, Finance, St Thomas
10 pgs, 567 gls, Paris, A & Co, Finance, St Thomas
BRONZE POWDER—13 cs, G H Barbey, Rugia, Hamburg
COCAINE—1 cs, G Amsinck & Co, C of Para, Panama
CORKS—27 bls, F Llado & Co, C Lafite, Bordeaux
OIL ESS—5 cs, Dodge & O, Fulda, Bremen
OPIUM—10 cs, 1,400lb, McKesson & R, Scaw Fell, Palermo
44 cs, 6,581 lb, N Y Quinine & Chem Works, Scaw Fel Palermo
2 cs, 326lb, Zuricalday & Co, La Gascogne, Havre
POTASH BICHRO—84 cks, 74,975lb, J L & D S Riker, S of Indiana, Glasgow
SODA BICHRO—64 cks, 38,654lb, J L & D S Riker, S of Indiana Glasgow
SPONGE—86 bls, A Isaacs & Co, Santiago, Nassau
82 bls, Lebess Sponge Co, Santiago, Nassau
42 bls, Lasker & B, Santiago, Nassau

PURE LOGWOOD EXTRACTS SOLID AND LIQUID. W. A. ROSS & BRO., 68 PINE ST., NEW YORK.

Carbonate of Ammonia.
Chlorate of Potash.
Oxalic Acid.
Zinc Dust. (Indigo Auxiliary.)
Blood and Egg ALBUMEN.
Aniline Colors.

Schulze-Berge & Koechl,
186 FRONT STREET, NEW YORK.
IMPORTERS OF CHEMICALS AND DYESTUFFS,
AND SOLE AGENTS FOR
Salol, pat'd, the new Antiseptic.
Made under License of the Patentees of Dr. F. v. Heyden nachf. Radebeul.

Mirbane Oil.
Pure Aniline Oil and Salt.
SALICYLIC ACID.
Archil Extract.
Indigo Extract.
Alizarine.

IMPORTS AT BALTIMORE.

For week ending Sept. 26.

BARYTES—23 cks, Main, Bremen
BRIMSTONE—2,400 tons, Napier, Girgenti
CHAMOIS—1 cs, Barrowmore, Liverpool
GLASS PLATE—20 cs, Main, Bremen
MANURE SALT—2,000 bgs, Main, Bremen
OPIUM—1 cs, Barrowmore, Liverpool
SALT CAKE—223 cks, Barrowmore, Liverpool
SODA ASH—259 cks, Barrowmore, Liverpool
110 cks, Wing & E, Nessmore, Liverpool

IMPORTS AT BOSTON.

Week ending Sept. 27

ALIZARINE—48 bbls, E Schlbach & Co, Lepanto, Antwerp
ANILINE COLORS—1 kg, order, Catalonia, L'pool
ARCHIL—15 cks, Baring Bros, Norseman, L'pool
BLEACH—20 cks, E & F King & Co, Palestine, L'pool
209 cks, order, Palestine, L'pool
318 cks, Bostonian, L'pool
269 cks, order, Norseman, L'pool
CARDAMOMS—8 cs. J B Moors & Co, Catalonia, L'pool
6 cs, Cutler Bros & Co, Norseman, L'pool
CHAMOMILES—10 bls, J B Moors & Co, Catalonia, L'pool
CHINA CLAY—220 cks, Phelps, D & Co, Palestine, L'pool
430 cks, order, Catalonia, L'pool
COCHINEAL—6 bgs, E E Rich & Co, Norseman, L'pool
CUDBEAR—3 cks, Baring Bros, Norseman, L'pool
DRUGS—16 cs, order, Catalonia, L'pool
FISH SOUNDS—6 cs, G Yarr & Co, Catalonia, L'pool
GLASS WINDOW—37 pgs, R Sherburne, Bostonian, L'pool
GREASE—5 cks, A J Foster & Co, Catalonia, L'pool
25 cks, Baring Bros & Co, Cephalonia, Liverpool
INDIGO AUX—17 cks, Schulze-B & K, Lepanto, Antwerp
LOGWOOD—412½ tons, order, Sullivan, Gonaives
240 tons, Thackeray & Co, Ribes, Miragoane
ROOTS—162 tns, order, A T, Negrel, Ja
MILLET SEED—58 bgs, order, Cepaalonia, Livarpool
MINERAL WAX—37 bgs, order, Catalonia, Liverpool
MUSK—1 cs, J B Moors & Co, Catalonia, Liverpool
OIL OLIVE—50 pgs, Brown Bros & Co, Norseman, Liverpool
SANDAL—2 cs, J B Moors & Co, Catalonia, Liverpool
1 cs, Butler Bros & Co, Norseman, Liverpool
POTASH CHLO—50 kgs, order, Bostonian, Liverpool
50 kgs, Morey & Co, Bostonian, Liverpool
SAGO FLOUR—305 bgs. J D Lewis, Norseman, Liverpool
351 bgs, order, Norseman, Liverpool
SCAMMONY—1 cs, J B Moors & Co, Catalonia, Liverpool
SHELLAC—10 cs, Merrill, D & Co, Palestine, Liverpool
SOAP CASTILE—100 cs, Brown Bros & Co, Norseman, L'pool
SODA ASH—89 cks, order, Palestine, Liverpool
42 cks, E & F King & Co, Bostonian, Liverpool
74 tcs, order, Catalonia, Liverpool
156 cks, 240 bgs, order, Norseman, Liverpool
145 cks, 900 bgs, Linder & M, Cephalonia, Liverpool
233 cks, Linder & M, Istrian, Liverpool
CARB—112 bbls, order, Catalonia, Liverpool
CAUSTIC—300 dms, E & F King & Co, Palestine, L'pool
300 dms, order, Norseman, Liverpool
CHLO—48 pgs, order, Catalonia, Liverpool
NITRATE—8,581 bgs, Baring Bros, Sultana, Pisagua

IMPORTS AT NEW ORLEANS.

For week ending Sept. 27.

CEMENT—6,700 bbls, Stephan, Hamburg
PHOSPHATE—1,352 tons, Neto, L'pool

IMPORTS AT MONTREAL.

Week ending September 28, 1889.

ACID—13 cks, J B Barker & Co, Freja, Hamburg
ALUM—17 cks, Bellhouse, Dillon & Co, Mondego, Liverpool
25 cks, Middleton & Meredith, Norwegian, Glasgow
50 cks, order, Freja, Antwerp
CAKE—66 cks, Bellhouse, Dillon & Co, Mondego, L'pool
AMMONIA CARB—20 kgs, order, Mondego, Liverpool
10 kgs, Lyman, Knox & Co, Toronto, Liverpool
BARWOOD—5 bgs, Dom Dyewood Co, Mondego, Liverpool
BLEACH—14 cks, Alex McArthur & Co, Mondego, Liverpool
BORAX—20 cks, Wilson, Paterson & Co, Mondego, Liverpool
CAMWOOD—29 bgs, Dom Dyewood S Co, Co, Mondego, L'p'l
CEMENT—3,100 cks, order, Freja. Hamburg
170 cks, J Nunderloh & Co, Freja, Hamburg
CHEMICALS—5 bbls, J Winer & Co, Mondego, Liverpool
CHICORY—17 cks. order, Freja, Hamburg
CLAY—27 cks, Winn & Holland, Freja, Hamburg
COPPER, SULPHATE—38 cks, order, Mondego, Liverpool
COPPERAS—20 bbls, R L Featherstonhaugh, Mondego, L'pool
GELATINE—13 cks, order, Mondego, Liverpool
4 cks, L Chaput Fils, Co, Mondego, Liverpool
HYPERNIC—65 bgs, Dom Dyewood Co, Mondego, L'pool
LOGWOOD—200 bgs, Dom Dyewood Co, Mondego, L'pool
EXT—10 cks, Dom Dyewood Co, Mondego, L'pool
OIL LINSEED—10 bbls, Lyman, Knox & Co, Toronto, L'pool
PARIS GREEN—50 kgs, order, Mondego, L'pool
SALTPETER—20 kgs, Radson Forbes & Regan, Mondego, L'l
10 cks, Bellhouse, D & Co, Freja, Hamburg
SODA ASH—5 cks, Lyman Bros & Co. Toronto, Liverpool
BICARB—125 kgs, Lucas, Park & Co, Mondego, L'pool
500 kgs, Bellhouse, D & Co, Mondego, Liverpool
100 kgs, L Chaput & Fils, Mondego, Livergool
CAUSTIC—400 dms, Bellhouse, Dillon & Co, Mondego, L'l
425 bbls, Wilson, Paterson & Co, Mondego, L'pool
10 cks, J Clarke & Co, Mondego, L'pool
SAL—75 cks, G E Jaques & Co, Mondego, L'pool
35 bbls, C McCallum, Mondego, L'pool
645 bbls, Wilson, Paterson & Co, Mondego, L'pool

IMPORTS AT PHILADELPHIA.

Week ending September 30.

ARSENIC—100 cks, A Klipstein, Montana, London
BLEACH—119 cks, order, L Gough, Liverpool
50 cks, E Yarnall & Son, L Gough, L'pool
CHAMOIS—1 cs, E G Holmden & Co, L Gough, L'pool
CHEMICALS—18 cks, C Lennig & Co, L Gough, L'pool
CHINA CLAY—1,100 cks, order, Libertas, Fowey
CEMENT—620 cks, order, Montana, London
500 cks, French, R & Co, Montana, London
GLASS WINDOW—1,676 cs, order, L Gough, L'pool
KAINIT—196 tons, order, Atalanta, Hamburg
PEPPER—384 bgs, order, Montana, London
PHOSPHATE ROCK—194 tons, order, Seraphim,
POTASH CHLO—100 kgs, Fergusson Bros, L Gough, L'pool
PYRITES—1,960 tons, Pa Salt Mfg Co, Macedonia, Huelva
SODA ASH—67 cks, order, L Gough, L'pool
101 cks, Brown Bros, L Gough, L'pool
79 cks, Churchman & Co, L Gough, L'pool
234 cks, Wing & E, Br Princess, Liverpool
CAUSTIC—135 dms, Pa Salt Mfg Co, L Gough, L'pool
50 dms, 23 cks, order, L Gough, L'pool
HYPO—210 cks, order, Atlanta, Hamburg
TERRA ALBA—1,000 tons, C Lennig & Co, V de Guardia, Cette
TURMERIC—80 bgs, order, Montana, London
VENETIAN RED—39 cks, Blakely & M, L Gough, L'pool
246 cks, J Lucas & Co, L Gough, L'pool

TOTAL DOMESTIC RECEIPTS.

FOR WEEK ENDING SEPT. 30, 1889.

		For week.	Since Jan 1.
Alcohol	bbls.	590	20,633
Ashes	pkgs.	..	2,516
Beeswax	pkgs.	12	738
Borax	pkgs.	..	27,379
China clay	cks.	136	5,618
Cottonseed	bags.	..	3,933
Meal	bgs.	..	8,641
Cake	bgs.	..	47,160
Flaxseed	bush.	63,300	128,672
Grease	pkgs.	1,150	29,561
High Wines	bbls.	501	150,556
Lead	pigs.	11,825	346,606
Mustard seed	bgs.	..	12,501
Oil, Cottonseed	bbls.	1,583	44,309
Lard	bbls.	357	5,868
Linseed	bbls.	..	..
Lubricating	bbls.	611	19,050
Cake	bags.	3,120	291,161
Oleo stock	pkgs.	890	28,234
Pitch	bbls.	60	3,320
Quicksilver	flks.	300	2,555
Rosin	bbls.	3,848	209,402
Stearine	pkgs.	.	4,757
Sumac	bags.	290	5,094
Tallow	pgs.	838	42,669
Tar	bbls.	1,804	25,064
Turpentine, crude	bbls.	150	1,021
spirits	bbls.	1,782	68,614

WITHDRAWALS FROM BOND.

Aniline colors, pgs	134
Bay rum, pgs	40
Cacao butter, bls	12
Cement, bbls	1000
China clay, cks	300
Corks, bls	88
Dyewood extract, cks	14
Gelatine, cs	42
Glass, plate, cs	1
Glass, window, cs	1197
Glue, cs	3
Glycerine, crude, dm	45
Licorice paste, cs	210
Matches, cs	13
Morphine, cs	10
Opium, cs	85
Pomade, cs	19
Potash pruss, cks	4
Sponge, bls	179
Sumac ext, cks	15

NEW YORK DOMESTIC RECEIPTS

For week ending Sept. 30.

ALCOHOL—65 bbls, J A Webb & Son, Penn RR
395 bbls, J A Webb & Son, B & O RR
BEESWAX—3 pgs, forward, str, Richmond
9 pgs, J L Smith & Co, str, Richmond
7 pgs, J K Cilley & Co, str, Brunswick
1 pg, Belt & B, str, Richmond
BONES—22 hhds, Lister Bros, str, N O
CLAY—136 cks, order, str, Charleston
FLAXSEED—32,900 bush, various, canal
2,400 bush, various, H R RR
8,300 bush, J A Dean & Co, canal
17,300 bush, Campbell & T, canal
600 bush, S H Weeks, Erie RR
GREASE—353 pgs, order, N R boats
3 pgs, order, L V RR
9 pgs, order, Housatonic RR
5 pgs, order, Penn RR
80 pgs, Ferris & K, Erie RR
20 pgs, S & S, Penn RR
30 pgs, Kuh & T, C RR of N J
75 pgs, Kuh & T, Erie RR
6 pgs, Kuh & T, Penn RR
50 pgs, D Mfg Co, M RR of N J
8 pgs, Welch, H & C, H R RR
48 pgs, Drummond & S, Penn RR
100 pgs, Swift & Co, Penn RR
8 pgs, O M Scripture, Penn RR
97 pgs, F M Patten, Penn RR
63 pgs, Fayerweather & L, str, Richmond
63 pgs, Fayerweather & L, N R boats
66 pgs, Rohe Bros, N R boats
6 pgs, Welch, H & C, C RR of N J
60 pgs, Ferris & K, B & O RR
HIGHWINES—65 bbls, J A Webb & Son, Penn RR
65 bbls, D T Mills, Penn RR
57 bbls, Ross & K, Penn RR
325 bbls, Curtis S & Co, Penn RR
65 bbls, T B Kerr, Penn RR
130 bbls, G W Kidd & Co, D L & W RR
66 bbls, J L Hasbrouck & Sons, D L & W RR
63 bbls E Howe, L V RR
65 bbls, J A Webb & Son, B & O RR
LEAD—1,320 pigs, Am W L Co, D L, & W RR
3,436 pigs, E Brush, str, Richmond
941 pigs, Behr & S, Erie RR
849 pigs, order, Erie RR
1,600 pigs, order, L V RR
2,640 pigs, Bklyn W L Co, str, Richmond
1,039 pigs, Tatham Bros, Erie RR
OIL COTTONSEED—450 bbls, Am Oil Co, str, Galveston
502 bbls, Central L Co, str, Galveston
50 bbls, Hopkins D & Co, str, Savannah
300 bbls, forward, str, N O
143 bbls, So Oil Co. ftr, N O
50 bbls, Am Oil Co, str, Savannah
88 bbls, Simmonds & G, str, Fernandina
LARD—202 bbls, N K Fairbank & Co, L V RR
60 bbls, N K Fairbank & Co, H R RR
20 bbls, Armour & Co, Balt Ip
10 bbls, H W Calef, Penn RR
65 bbls, order, H R RR
LUB—500 bbls, Thompson N & Co, Erie RR
61 bbls, Vacuum Oil Co, Erie RR
50 bbls, order, Penn RR
OIL CAKE—230 pgs, I & C Moore & Co, B & O RR
300 pgs, I & C Moore & Co, Penn RR
411 pgs, S H Weeks & Co, Erie RR
535 pgs, Simmonds & G, D, L & W RR
1,600 pgs, Simmonds & G, H R RR
OLEO STOCK—825 pgs, Armour & Co, B & O RR
65 pgs, Armour & Co, H R RR
PITCH—10 bbls, forward, str, Wilmington
50 bbls, De Grauw, A & Co, str, Savannah
ROSIN—358 bbls, forward, str, Savannah
93 bbls, Welch, H & C, str, Savannah
263 bbls, F W Blossom, str, Savannah
316 bbls, F W Blossom, str, Charleston
540 bbls, Dutton & W, str, Savannah
122 bbls, order, str, Charleston
2 bbls, order, str, Wilmington
600 bbls, Murchison & Co, str, Savannah
131 bbls, J Turton's Sons, str, Savannah
43 bbls, G Potter & Co, str, Brunswick
100 bbls, Paterson, D & Co, str, Brunswick
444 bbls, Paterson D & Co, str, Richmond
101 bbls, Z Mills, str, Charleston
46 bbls, G W Bailey & Co, str, Charleston
194 bbls, G W Bailey & Co, str, Richmond
135 bbls, Shotter & Co, str, Savannah
63 bbls, G Potter & Co, str, Fernandina
67 bbls, Tolar, H & Co, str, Richmond
220 bbls, forward, str, Richmond
SOAP STOCK—48 bbls, So Oil Co, str, N O
STARCH—775 pgs, order, Penn RR
SUMAC—140 bgs, A Klipstein, str, Richmond
150 bgs, forward, str, Richmond
TALLOW—84 pgs, order, N R boats
1 pg, order, Erie RR
11 pgs, order, D, L & W RR
3 pgs, order, C RR of N J
7 pgs, order, H R RR
50 pgs, order, B & O RR
8 pgs, order, Penn RR
6 pgs, order, N Y, O & W RR
100 pgs, G Vandenhove, N R boats
36 pgs, G Vandenhove, H R RR
25 pgs, G Vandenhove, Penn RR
34 pgs, P H Van Iderstein, C RR of N J

E. MERCK, MANUFACTURING CHEMIST,

73 William Street, New York.

HEADQUARTERS FOR :—

Acids for medicinal and technical uses
Aconitine
Adonidin
Agaracine
Aloin, c.p.
Ammonia preparations
Amylene Hydrate
Amyls
Antifebrine
Apiol—fluid, green
Apomorphia
Arsenic preparations
Atropia
Barium preparations
Bismuth preparations
Boro-Glycerine
Cadmium preparations
Caffeine
Calcium preparations
Camphor—Monobromated
Cereum—Oxalate
Chloral-Hydrate
Cocaine
Coniine
Copper preparations
Cotoine
Creasote
Creoline—Pearson
Croton-Chloral-Hydrate
Cumarine
Diastase of Malt
Digitalin
Duboisine
Elaterine
Elaterium
Ergotine
Eserine—pure
Sulphate
Ether, Benzoic
Butyric
Formic
Ethyl—Bromide
Iodide
Eucalyptol
Eugenol
Extract Male Fern
Glycyrhizine
Guajacol
Homatropine
Hydrastine
Hydrochinon
Hydroxylamine hydrochlorate
Extracts
Hyoscyamine
Hyoscine
Ichthyol
Iodoform
Iodol
Iron preparations
Juices
Kousseine
Lactucarium
Lead preparations
Lithium preparations
Magnesium preparations
Manganese preparations
Menthol
Mercury preparations
Morphine
Naphthaline
Naphthol-Beta
Nickle preparations
Oils
Ox Gall
Pancreatine
Papayotine
Par-aldehyd
Pelletierine
Pepsins
Phenacetine
Picrotoxine
Pilocarpine
Piperine
Potassa, caustic
Potassium preparations
Propylamine
Pyridine
Resorcin
Saccharine
Salicine
Salol
Sodium preparations
Sulphonal
Sparteine
Strontia
Tannin
Terebene
Terpine Hydrate
Thalline—Sulphate
Thymol
Tinctures
Uranium preparations
Urethane—Ethyl
Veratrine
Zinc preparations

For Complete List of his Manufactures, see "Merck's Index."

This style of bottle adopted for American market in **1869.**

FIRST ORDER OF MERIT

Awarded to Leopold Hoff of Hamburg,

at the Melbourne, Australia Exposition, 1889, and A BRONZE MEDAL at the Hamburg Industrial Exposition, 1889, for Quality and Excellence of his Malt Extract.

This original article can only be obtained in the United States under label of

HOFF'S MALT EXTRACT--TARRANT'S

THE ORIGINAL. Introduced into the U. S. by Leopold Hoff, **1866.**

THE IMPORTED. Imported by Tarrant & Co., per S.S. Hamburg-Am. Packet Co., since **1869.**

THE GENUINE. Manufactured to-day in the same factory and by the same party as in **1866.**

Is invariably put up in the special green bottle as per cut; it has a German caution label printed in red on the back of each bottle and is never sold in the U. S. in any other style of package.

CAUTION.

Beware of a substitute article for which preposterous claim of originality is made, by a concern which has assumed the name Johann Hoff and which dates back only to 1880, eleven years after we became the Agents for and Importers of the original Hoff's Malt which is now sold as

HOFF'S MALT EXTRACT-TARRANT'S.

TARRANT & CO.,

Sole Agents and Importers,

278, 280, 282 Greenwich Street,

NEW YORK.

ESTABLISHED 1834.

5 pgs, B T Babbitt, D, L & W RR
10 pgs, B T Babbitt, Penn RR
17 pgs, B T Babbitt, N Y, O & W RR
28 pgs, Kuh & T, N Y, W S & B RR
7 pgs, Kuh & T, Penn RR
11 pgs, H W Calef, H R RR
100 pgs, Armour & Co, N Y, O & W RR
40 pgs, Armour & Co, D, L & W RR
16 pgs, Ferris & K, D, L & W RR
9 pgs, A Churchman, N R boats
16 pgs, Colgate & Co, D, L & W RR
42 pgs, Welch, H & C, N Y, N H & H RR
14 pgs, C S Higgins & Co, Erie RR
5 pgs, O M Scripture, Penn RR
38 pgs, H W Calef, N R boats
10 pgs, G F Taylor, H R RR
2 pgs, Welch, H & C, C RR of N J
93 pgs, G F Taylor, C RR of N J
TAR—335 bbls, forward, str, Wilmington
684 bbls, order, str, Wilmington
311 bbls, order, str, Brunswick
118 bbls, Z Mills, str, Richmond
300 bbls, F W Blossom, str, Richmond
56 bbls, Paterson, D & Co, str, Richmond
TURPENTINE SPIRITS—126 bbls, Dutton & W, str, Savannah
56 bbls, forward, str, Savannah
175 bbls, forward, str, Wilmington
10 bbls, forward, str, Richmond
786 bbls, order, str, Wilmington
16 bbls, G Potter & Co, str, Brunswick
13 bbls, G Potter & Co, str, Richmond
18 bbls, Z Mills, str, Charleston
40 bbls, Tolar, H & Co, str, Charleston
421 bbls, Tolar, H & Co, str, Richmond
33 bbls, W H Wiggins, str, Charleston
8 bbls, G W Bailey & Co, str, Charleston
71 bbls, G W Bailey & Co, str, Richmond
5 bbls, W K Hinman & Co, str, Richmond
4 bbls, Hueston & Co, str, Richmond
200 bbls, Paterson, D & Co, str, Savannah
CRUDE—150 bbls, order, str, Wilmington

WILMINGTON DOMESTIC RECEIPTS

For week ending Sept. 27.

ROSIN—1,845 bbls, Inland
TAR—1,633 bbls, Inland
TURPENTINE SPIRITS—770 cks, Inland
CRUDE—146 bbls, Inland

BOSTON DOMESTIC RECEIPTS

For week ending Sept. 27.

GREASE—66 bbls, B & P RR
29 bbls, F RR
19 bbls, 13 pgs, By sea
53 bbls, B & A RR
36 bbls, O C RR
14 bbls, 67 pgs, B & M RR
8 bbls, N Y & N E RR
TALLOW—39 bbls, 4 pgs, O C RR
115 bbls, N Y & N E RR
62 bbls, 76 pgs, B & M RR
8 bbls, F RR
202 bbls, B & P RR
11 bbls, B & A RR
2 bbls, 1 pg, by sea

CHARLESTON DOMESTIC RECEIPTS

For week ending Sept. 27.

CLAY—74 cks, S C RR
PHOSPHATE ROCK—11 cars, C & S RR
ROSIN—982 bbls, S C RR
229 bbls, C & S RR
407 bbls, N E RR
SP TURP—342 cks, S C RR
28 cks, C & S RR
197 cks, N E RR

SAVANNAH DOMESTIC RECEIPTS

For week ending Sept. 27.

CEMENT—50 bbls, C & S RR
CLAY—150 bbls, C RR
COTTONSEED—11 cars, C RR
GREASE—20 kgs, 10 bbls, 60 cs, S, F & W RR
OIL—1 bbl, C RR
110 bbls, S, F & W RR
COTTONSEED—64 bbls, C RR
PAINT—1 bbl, C & S RR
PHOSPHATE ROCK—1 car, C & S RR
PITCH—10 bbls, C & S RR
POTASH—1 bbl, C & S RR
PYRITES—1 car, C & S RR
ROSIN—158 bbls, C & S RR
8,095 bbls, S, F & W RR
1,634 bbls, C RR
TURP SP—38 bbls, C & S RR
2,461 bbls, S, F & W RR
424 bbls, C RR
CDE—82 bbls, S, F & W RR
SOAP—5 bxs, C RR
TALLOW—2 pgs, C RR
WAX—6 pgs, C RR
WHITE LEAD—3 kgs, C RR

EXPORTS FROM NEW YORK FOR THE WEEK ENDING SEPT. 30.

ACID
4 cbys $14 Caracas, Pto Cabello
2 cbys $7 Alvo, Jeremie
2 bxs $19 Ailsa, Savanilla
1 bx $5 C of Alexandria, Vnra Cruz

ACID CARB
1 cs $10 Colon, San Juan

ACID MURIATIC
4 cbys $14 Arica, St Thomas

ACID SULPHURIC
2 cbys $8 Caracas, La Guayra
10 cbys $22 Daylight, Pt Spain
1 cs $134 Seneca, Havana
1 bx $8 Ailsa, Savanilla

ALCOHOL
3,797 gls $1,048 Galatea, St Pierre

ALUM
1 bbl $8 Caracas, Maracaibo

ALOES
40 bbls $160 Ailsa, Pt au Prince
5 bbls $15 Liberia, Monrovia

AMMONIA
2 cs, $125 Seneca, Havana
1 ck $22 C of Alexandria, Havana

ANNATTO SEED
14 bbls $150 Slavonia, Copenhagen

ANISEED
1 bg $5 Caracas, Curacoa
12 bgs $113 Caracas, Maracaibo

ASPHALTUM
9 bgs $34 Rob & Harry, St John. N B

BARK
24 bgs $116 C of Berlin, Liverpool
1,000 bgs, 1,225 Sorrento, Hamburg
131 bgs, 3,009 Rugia, Hamburg

BARK EXTRACT
60 bxs, $198 Obdam, Rotterdam

BENZINE
15,178 gls $1,370 Hectanooga, Liverpool

BRIMSTONE
750lb $13 C of Alexandria, Havana

CANDLES
40 cs $33 Caracas, Pto Cabello
15 cs $29 Caracas, Curacoa
2 cts $20 Caroline Miller, Gonaives
4 pgs $36 Colon, Corinto
1 ct $10 Alvo, Jacmel
7 cts $70 Alvo, Aux Cayes
30 bxs $52 Alvo, Kingston
60 bxs $84 Hondo, Belize
6 bxs $11 Hondo, Livingston
25 cs $117 Basil, Para
20 cs $10 Bermuda, St Lucia
10 cs $125 Bermuda, Barbadoes
5 bxs $9 Bermuda, St Croix
7 pgs $30 Belair, Trinidad
50 pgs $117 Ailsa, Pt au Prince
10 bxs $12 Ailsa, Savanilla
25 bxs $44 Habana, La Guayra
20 cs $24 Habana, Sta Marta
30 bxs $43 Arica, St Thomas
5½cs $13 Liberia, Sierre Leone

CARBON BLACK
50 bbls $300 C of Berlin, Liverpool
9bbls $32 Devonia, Glasgow

CASCARA BARK
101 pgs $1,600 Rugia, H'burg
13 bls $65 S of Nebraska, Glasgow

CASCARA SAGRADA
6 bgs $54 Aug Victoria, Hamburg
3 bls $44 Nevada, Liverpool
10 bls $228 La Gascogne, Havre

CASSIA
12 bls $37 Caracas, Pto Cabello
5 bbls $15 Rob Harry, St John N B
5 bls $16 Ailsa, Petit Goave
5 bls $16 Habana, La Guayra

CEMENT
600 bbls $1,320 Daphne, St John, N B
15 bbls $30 Ailsa, Pt au Prince
25 bbls $68 Habana, Havana
100 bbls $250 C of Alexandria, Progreso
63 bbls $181 Molega, St Domingo City

CINNAMON
2 pgs $13 C Miller, Pt du Paix
2 pgs $14 Basil, Ceara
4 cs $17 Basil, Maranham
14 bls $312 C of Alexandria, Progreso

CLOVES
2 bls $31 Caracas, Maracaibo
1 bl $22 Colon, Buenaventura
1 bbl $15 Ailsa, Savanilla
1 bbl $20 C of Alexandria, Progreso

COTTONSEED MEAL
26,880lb $1,614 Gloucester City, Bristol

COPPER PAINT
30 gls $40 Hondo, Belize
100 gls $144 Nevada, Liverpool
5 gls $7 Henriette, Hobart

CORIANDER SEED
2 bgs $22 Caracas, Maracaibo

CREOSOTE
3 bbls $32 Alvo, Kingston

CUMMIN SEED
1 bg $9 Caracas, Curacoa
3 bgs $26 Caracas, Maracaibo
2 bgs $20 Colon, Buenaventura
1 bg $9 Ailsa, Savanilla
1 bg $16 Habana, Sta Marta

DRY PAINT
2 cs $30 Caracas, La Guayra
2 cs $20 B Yglesias, Tuxpan
4 pgs $73 C of Alexandria, Havana

DYEWOOD EXTRACT
6 pgs $137 Bothnia, Liverpool
75 pgs $1,105 Belgenland, Antwerp
75 bxs $471 The Queen, Liverpool
61 pgs $249 Spain, L'pool
1,075 bxs $5,379 Rugia, H'burg

FERTILIZER
1,000 bgs $900 Orinoco, Hamilton

GASOLINE
28,800 gls $5,328 Hectanooga, Liverpool

GINGER
6 bgs $38 Rob & Harry, St John, N B

GLUCOSE
88,000lb $1,780 Devonia, Glasgow
15,897lb $382 Buffalo, Hull

GLUE
2 bbls $40 C of Alexandria, Havana
2 cks $78 C of Atlanta, Havana
2 bbls $58 B Yglesias, Progreso
2 cs $19 Henrietta, Hobart
1 bx $10 Ailsa, Savanilla
3 pgs $42 Ailsa, Carthagena
3 cks $266 C of Alexandria, Havana
1 bbl $20 C of Alexandria, Progreso

GLYCERINE
1 cs $11 Bermuda, Martinique

GOLDEN SEAL ROOT
13 bgs $425 Aug Victoria, Hamburg

GRAPE SUGAR
44,800lb $980 Gloucester City, Bristol
33,600lb $756 Bothnia, Liverpool
67,200lb $1,680 C of Berlin, Liverpool

GREASE
1,500lb $104 Monmouthshire, Yokohama
30,000lb $1,200 Trave, Bremen
814lb $26 Caroline Miller, Cape Hayti
905lb $27 Geo Bird, Macoris
24,326lb $1,100 Lassell, Liverpool
12 bbls $290 Lassell, Montevideo
5,227lb $181 Colon, Tumacoa
1,964lb $118 Colon, Aspinwall
200lb $22 Alvo, Kingston
1,132lb $14 Basil, Para
51,309lb $2,565 Slavonia, Stettin
68,154lb $4,500 Devonia, Iquique
5,240lb $120 Henriette, Brisbane
389lb $20 Rugia, Hamburg
2,052lb $102 C of Alexandria, Progreso

GREEN PAINT
2 cs $24 Colon, Buenaventura

GUAIAC POWDER
18 bbls $180 Rugia, Hamburg

GUM
12 pgs $75 Rugia, Hamburg
3 cs $385 C of Alexandria, Havana

GUM ARABIC
1 cs $26 C of Alexandria, Progreso
1 cs $212 C of Alexandria, Havana

GUM COPAL
1 cs $6 Basil, Para

HERBS
1 bl $23 Rugia, Hamburg

LACQUER
3 pgs $100 Rugia, H'burg

LAMPBLACK
15 bbls $61 B Yglesias, Vera Cruz
1 bbl $5 Colon, Corinto
3 bbls $11 Galena, Windsor, N S

LAVENDER FLOWERS
1 bl $10 Caracas, Maracaibo

LEECHES
2 cs $53 Caracas, Maracaibo

LEAD PAINT
34 kgs $38 Sif, Cape Hayti

LIME ACETATE
479 bgs $933 DeRuyter, Antwerp
1,070 bgs $3,004 Slavonia, Stettin

LIME JUICE
20 pgs $1,100 Devonia, Glasgow
5 puns $250 Portia, Halifax
100 gls $60 The Queen, Liverpool
500 gls $250 Alamea, L'pool

LOGWOOD
1 bx $6 Caracas, Maracaibo
4 bbls $13 C of Alexandria, Havana

LOGWOOD EXTRACT
1,000 bxs $4,770 Aug Victoria, Hamburg
52 bxs $257 H Cortez, Barcelona
100 bxs $440 Obdam, R'dam

LUBRICATING GREASE
3,000lb $160 Havilah, Pt Elizabeth
3,428lb $68 C of Alexandria, Havana

MATCHES
8 cs $236 Caracas, Maracaibo
1 cs $13 C Miller, Pt du Paix
5 cs $45 Colon, Tumacoa
10 cs $117 Alvo, Aux Cayes
5 cs $33 Alvo, Jeremie
6 cs $38 Hondo, Greytown
8 cs $49 Hondo, Belize
11 cs $175 Ailsa, Savanilla
5 cs $82 Ailsa, Carthagena
5 cs $66 Arica, St Thomas

OCHRE
2 bbls $17 Ailsa, Petit Goave

OIL ALMOND
4 cs $47 Caracas, Pto Cabello
2 cs 16 Colon, Buenaventura
1 cs $7 Hondo, Greytown
2 bxs $12 Hondo, Livingston
2 cs $22 Ailsa, Baranquilla

OIL CAKE
481,240lb $6,375 Lassell, L'pool
216,400lb $3,135 Devonia, Glasgow
1,141,869lb $16,653 Gloucester City, Bristol
478,000lb $6,350 Tycho Brahe, Liverpool
80,000lb $1,180 Kaluna, Guadeloupe
210,830lb $3,275, Llandaff City, Bristol

OIL CASTOR
20 gls $21 B Yglesias, Tampico
10 gls $15 Colon, Buenaventura
6 cks $130 Hondo, Kingston
20 gls $22 Ailsa, Baranquilla

OIL COCOANUT
2 pun $176 Rob & Harry, St John, N B

OIL COD LIVER
2,526 gls $840, Seneca, Matanzas
15 cs $206 C of Alexandria, Progreso

OIL COTTONSEED
585 gls $296 Alvo, Kingston
20 gls $14 Hondo, Belize
4,966 gls $2,500 Gallileo, Trieste
99 gls $50 Bermuda, Barbadoes
8,430 gls $4,020 Bothnia, Liverpool
925 gls $480 Pearl, Georgetown
565 gls $241 Arica, St Thomas

OIL ESSENTIAL
6 cs $360 Aurania, L'pool
3 cs $310 La Bourgogne, Havre
2 cs $240 Aug Victoria, H'burg
2 bxs $214 La Gascogne, Havre
2 cs $112 C of Alexandria, Vera Cruz

OIL FISH
24,236 gls $4,797 Devonia, Bombay
981 gls $295 E May, Callao

OIL HARNESS
9 gls $16 Bothnia, Liverpool

OIL LARD
20 gls $14 Caracas, Curacoa
5,872 gls $2,953 Denmark, London
5,126 gls $3,082 Canning, Santos
2,240 gls $1,435 Gaerwen, Pt Elizabeth
90 gls $45 Bermuda, St Lucia
3,130 gls $1,659 Salome, Pt Natal
252 gls $134 La Gascogne, Havre
50 gls $35 Ailsa, Pt au Prince
927 gls $475 Pearl, Georgetown
500 gls $315 C of Alexandria, Vera Cruz

OIL LINSEED
50 gls $33 Caracas, Maracaibo
20 gls $15 Colon, Corinto
260 gls $142 Hondo, Greytown
14 gls $12 Ailsa, Savanilla
15 gls $11 Habana, Havana
10 gls $9 Habana, Sta Marta
100 gls $63 C of Alexandria, Vera Cruz
100 gls $56 Arica, St Thomas
30 gls $21 Sif, Cape Hayti
58 gls $42 Molega, St Domingo City

OIL LUBRICATING
37,104 gls $4,324 La Bourgogne, Havre
310 gls $125 Caracas, La Guayra
510 gls $77 Aug Victoria, H'burg
1,040 gls $530 Monmouthshire, Shanghai
705 gls $175 Colon, P Arenas
40 gls $9 Colon, Buenaventura
50 gls $20 Colon, Panama
870 gls $253 Colon, Guayaquil
971 gls $160 Obdam, R'dam
1,237 gls $368 Hondo, Greytown
250 gls $51 Hondo, Livingston
70,734 gls $7,060 Gallileo, Hull
32,634 gls $4,391 Slavonia, Stettin
5,973 gls $1,270 Devonia, Bombay
2,483 gls $788 Devonia, Glasgow
13,710 gls $7,902 Nevada, L'pool
49,750 gls $6,500 Murciano, L'pool
28 gls $15 Portia, St Johns N F
56,647 gls $6,950 Horrox, L'pool
1,719 gls $154 Geo Bird, Macoris
53,537 gls $7,266 The Queen, L'pool
99,498 gls $12,000 James Stafford, London
9,174 gls $854 Buffalo, Hull
923 gls $295 Henriette, Brisbane
985 gls $175 H Cortez, Barcelona
609 gls $75 Rob & Harry, St John, N B
19,638 gls $1,110 Belgenland, Antwerp
8,092 gls $2,515 Bothnia, Liverpool
2,439 gls $870 Ailsa, Savanilla
24,599 gls $2,873 Rugia, Hamburg
308 gls $124 Habana, Havana
80 gls $40 C of Alexandria, Havana
99,850 gls $11,100 Obdam, Rotterdam
50 gls $26 Arica, St Thomas
10 gls $6 Liberia, Monrovia
3,000 gls $1,375 E May, Callao
150 gls $78 Molega, St Domingo City

OIL MACHINE
10 cs $50 Aug Victoria, H'burg
1 cs $14 B Yglesics, Havana
3 cs $21 B Yglesias, Vera Cruz
3 cs $15 Gallileo, Hull
2 cs $10 Henriette, Brisbane
5 cs $25 C of Alexandria, Progreso
12 cs $75 C of Alexandria, Vera Cruz

OIL MEAL
9,850lb $174 Bermuda, Antigua
1,250lb $18 Bermuda, St Croix
1,750lb $30 Bermuda, Domenica
1,875lb $27 Bermuda, Trinidad
875lb $15 Arica, St Thomas

OIL OLEO
17,194lb $1,719 La Gascogne, Havre
61,204lb $6,121 S of Nebraska, Glasgow
182,022lb $15,819 Obdam, Rotterdam

OIL OLIVE
20 gls $22 Ailsa, Baranquilla

OIL PALM
1 bbl $39 C of Alexandria, Havana

OIL PEPPERMINT
5 cs $295 La Bourgogne, Havre
10 cs $578 Aug Victoria, Hamburg
10 cs, $600 Rugia, Hamburg

OIL PINE
245 gls $30 Rob & Harry, St John, N B

OIL SESAME
15,000 gls $8,500 Murciano, Buenos Ayres

OIL SPERM
4 cs $35 Caracas, Pto Cabello
100 gls $15 Ailsa, Petit Goave
754 gls $588 S of Nebraska, Glasgow

OIL WHALE
1 bbl $19 Alvo, Kingston

OIL WAX
139,500lb $8,950 Slavonia, Stettin
29,510lb $2,000 Devonia, Glasgow
92,733lb $3,915 Circassia, Glasgow

PARAFFINE
44,150lb $3,000 Bothnia, L'pool

PARAFFINE WAX
90 bbls $1,110 Bothnia, L'pool
22,500lb $1,200 Rugia, H'burg
56,640lb $2,645 S of Nebraska, Glasgow

PEPPER
2 bgs $45 Caracas, Maracaibo
2 bgs $35 Colon, Buenaventura
1 bg $20 Alvo, Aux Cayes
4 bgs $74 Basil, Maranham
1 bg $13 Bermuda, St Croix
1 bg $15 Ailsa, Savanilla
4 bgs $60 Ailsa, Carthagena
1 bg $8 Ailsa Petit Goave
5 bg $100 C of Alexandria, Progreso

PIMENTO
2 bgs $20 Caracas, Maracaibo
25 bgs $320 Devonia, Glasgow
20 bgs $252 Bothnia, L'pool

PITCH
4 bbls $5 B Yglesias, Havana
10 bbls $14 Alvo, Aux Cayes
10 bols $15 Gaerwen, Pt Elizabeth
8 bbls $12 Ailsa, Pt au Prince
3 bbls $5 Liberia, Sierre Leone

POTASH
2 cs $9 Colon, Colon
4 cs $13 Portia, St Johns, N F

QUERCITRON
100 bxs $187 Obdam, R'dam

QUERCITRON EXT
1,000lb $3,237 Rugia, H'burg

QUININE
100 ozs $40 B Yglesias, Tampico

RED LEAD
2 kgs $32 Caracas, Pto Cabello
4 kgs $14 Habana, Havana
5 kgs $35 Molega, St Domingo City

ROOTS
2 bls $31 Aug Victoria, St Petersburg
20 bls $280 Aug Victoria, Moscow
16 bgs $720 Nevada, L'pool
10 bls $155 Belgenland, Antwerp
75 bls $3,216 Rugia, H'burg

ROSIN
64 bbls $158 Caracas, La Guayra
60 bbls $140 Caracas, Pto Cabello
30 bbls $83 Caracas, Maracaibo
24 bbls $61 Caracas, Curacoa
50 bbls $88 Monmouthshire, Shanghai
10 bbls $26 Monmouthshire, Yokohama
10 bbls $20 Monmouthshire, Hong Kong
16 bbls $74 B Yglesias, Vera Cruz
14 bbls $24 B Yglesias, Havana
250 bbls $788 Canning, Santos
10 bbls $47 Gaerwen, Pt Elizabeth
25 bbls $64 Basil, Maranham
50 bbls $126 Basil, Ceara
227 bbls $350 Devonia, Glasgow
253 bbls $870 Progresso, Buenos Ayres
100 bbls $350 Henriette, Hobart
310 bbls $664 Henriette, Brisbane
850 bbls $2,274 Chignecto, Rio Janeiro
30 bbls $99 Ailia, Pt au Prince
130 bbls $439 Habana, La Guayra
50 bbls $117 Habana, Pto Cabello
15 bbls $46 C of Alexandria, Vera Cruz
9 bbls $24 C of Alexandria, Havana
150 bbls $425 E May, Callao
200 bbls $585 E May, Mollendo

SARSAPARILLA BARK
1 bg $58 C of Alexandria, Havana

SARSAPARILLA ROOT
10 bls $175 H Cortez, Barcelona

SENEGA ROOT
22 bgs $500 Aug Victoria, Hamburg
10 bls $472 La Gascogne, Havre
49 bls $2,900 Rugia, H'burg
2 bls $110 S of Nebraska, Glasgow

SOAP
2,300 bxs $1,334 Lackawanna, Pt au Prince
1 cs $42 C of Alexandria, Vera Cruz
1 bx $12 Caracas, La Guayra
1 cs $36 Caracas, Maracaibo
15 bbls $327 Monmouthshire, Shanghai
1 cs $8 B Yglesias, Havana
2,000 bxs $1,160 Caroline Miller, Cape Hayti
700 bxs $358 Caroline Miller, Pt du Paix
2 bxs $15 Lassel, Liverpool
147 pgs $453 Colon, Punta Arenas
200 bxs $293 Colon, Colon
1 cs $27 Colon, Talcahuano
1 cs $31 Colon, San Juan
1,375 bxs $747 Alvo, Aux Cayes
1,350 bxs $748 Alvo, Jeremie
600 bxs $348 Alvo, Jacmel
4 cts $45 Alvo, Kingston
1 cs $5 Basil, Maranham
1 bx $5 Bermuda, St Croix
400 bxs $800 Henriette, Brisbane
152 cs $728 Belgenland, Antwerp
100 bxs $185 Bothnia, Liverpool
2,200 bxs $1,276 Ailsa, Pt au Prince
24 cs $158 Ailsa, Savanilla
50 bxs $25 Ailsa, Carthagena
250 bxs $145 Ailsa, Petit Goave
425 bxs $407 Ailsa, Gonaives
2 bxs $60 C of Alexandria, Havana
1 cs $10 C of Alexandria, Vera Cruz
1 cs $9 C of Alexandria, Progreso
401 cs $369 Arica, St Thomas
236 bxs $230 Liberia, Monrovia
8 cs $36 Liberia, Sierre Leone
125 bxs $260 E May, Callao

SOAP STOCK
13,400lb $195 Seneca, Havana
6,231lb $325 E May, Callao

SODA
1 cs $8 Colon, Tumacoa
6 bbls $25 C of Alexandria, Havana

SODA BICARB
1 bx $6 Caracas, Maracaibo

SODA CAUSTIC
10 dms $135 C of Alexandria, Havana
7 dms $99 Ailsa, Savanilla
30 dms $752 C of Alexandria, Vera Cruz
1 dm $23 Molego, St Domingo City

SPERMACETI
12,626lb $2,550 Devonia, Glasgow
622lb $150 La Gascogne, Havre
3,154lb $650, Buffalo, Hull

SPONGE
34 bls $1,590 Rugia, Hamburg

STARCH
10 bxs $12 Victory, Nassau
2 bbls $24 Hondo, Greytown
10 bbls $125 S of Nebraska, Glasgow
102 pgs $231 Arica, St Thomas

STEARINE
24,839lb $1,366 C of Berlin, Liverpool
404lb $14 Colon, Tumacoa
50,279lb $2,734 Alaska, Liverpool

TALLOW
2 bbls $38 Caracas, La Guayra
140,000lb $11,200 Aug Victoria, Hamburg
11,865lb $652 B Yglesias, Vera Cruz
16,816lb $850 B Yglesias, Tuxpan
22,139lb $1,328 Colon, Corinto
250lb $20 Alvo, Kingston
3,987lb $234 Hondo, Greytown
23,576lb $1,120 Gallileo, Hull
30,000lb $1,550 Slavonia, Stettin
1,097lb $71 Geo Bird, Macoris.
31,307lb $1,761 Sorrento, Hamburg
225,464lb, $8,278 Rugia, Hamburg
1,568lb $102 Habana, Havana
9,636lb $494 C of Alexandria, Vera Cruz
8,637lb $471 C of Alexandria, Progreso
949,807lb $42,422 Obdam, Rotterdam
21,307lb $1,065 E May, Callao
674lb $41 Molega, St Domingo City

TALLOW SCRAP
40,836lb $716 Denmark, London

TAR
2 cs $13 Caracas, Pto Cabello
8 bbls $15 Caracas, Curacoa
10 cs, 17 B Yglesias, Havana
9 bbls $18 C Miller, Pt du Paix
8 bbls $29 Alvo, Kingston
10 bbls $40 Hondo, Greytown
9 bbls $41 Geo Bird, Macoris
5 cs $9 Henriette, Brisbane
1 bbl $5 Ailsa, Baranquilla
4 cs $9 Ailsa, Pt au Prince
50 bbls $160 Pearl, Georgetown
8 cs $12 C of Alexandria, Havana
25 cs $45 C of Alexandria, Progreso
2 bbls $7 Arica, St Thomas
2 bbls $7 Liberia, Monrovia
3 bbls $11 Liberia, Sierre Leone

TURPENTINE
40 gls $24 Caracas, La Guayra
100 gls $52 Caracas, Pto Cabello
130 gls $63 Caracas, Curacoa
300 gls $154 B Yglesias, Havana
40 gls $21 Colon, Buenaventura
20 gls $12 Colon, San Juan
201 gls $104 Alvo, Kingston
10 gls $7 Hondo, Greytown
5,000 gls $2,700 Canning, Santos
200 gls $127 Gaerwen, Pt Elizabeth
100 gls $50 Basil, Para
2,000 gls $965 Progresso, Buenos Ayres
100 gls $67 Salome, Pt Natal
260 gls $130 Portia, Halifax
2,400 gls $1,233 Henriette, Brisbane
1,248 gls $655 Henriette, Hobart
748 gls $283 Rob & Harry, St John, N B
180 gls $95 Seneca, Havana
3,500 gls $1,946 Chignecto, Rio Janeiro
120 gls $70 Ailsa, Savanilla
10 gls $5 Ailsa, Carthagena
10 gls $8 Habana, St Marta
1,025 gls $544 C of Alexandria, Havana
200 gls $80 E May, Mollendo
400 gls $200 E May, Callao
12 gls $8 Molega, St Domingo City

VANILLA EXTRACT
10 gls $54 Habana, La Guayra

VARNISH
75 gls $276 La Gascogne, Havre
40 gls $144 C of Atlanta, Sagua
20 gls $14 C of Atlanta, Havana
10 gls $15 Caracas, La Guayra
149 gls $122 Caracas, Pto Cabello
336 gls $500 Aug Victoria, Hamburg
100 gls $125 Monmouthshire, Yokohama
12 gls $16 B Yglesias, Vera Cruz
10 gls $10 Colon, Corinto
62 gls $50 Colon, Acajutla
4 gls $5 Colon, Panama
50 gls $35 Alvo, Kingston
10 gls $9 Hondo, Greytown
24 gls $22 Gaerwen, Pt Elizabeth
21 gls $20 Basil, Para
10 gls $9 Bermuda, Barbadoes
12 gls $12 Belair, Trinidad
190 gls $207 Salome, Pt Natal
53 gls $47 Fulda, Bremen
248 gls $440 Buffalo, Hull
80 gls $118 Henriette, Brisbane
45 gls $37 Ailsa, Savanilla
170 gls $190 C of Alexandria, Vera Cruz
269 gls $217 C of Alexandria, Havana
20 gls $25 E May, Callao

VASELINE
1 cs 51 Monmouthshire, Kobe
1 cs $10 Alvo, Kingston
1 cs $18 Hondo, Belize
1 cs $10 Hondo, Greytown
1 cs $10 Bermuda, Barbadoes
1 cs $9 Bermuda, St Kitts
5 bbls $120 Nevada, L'pool
1 cs $41 Belair, Trinidad
1 cs $5 La Gascogne, Havre
1 cs $9 Henriette, Brisbane

WAX
61,250lb $4,200 Gloucester City, Bristol
1,557lb $353 H Cortez, Barcelona
100lb $10 Habana, St Jago

WHALEBONE
2,215lb $7,198 Obdam, R'dam
303lb $1,150 La Gascogne, Havre
2 cs $500 Trave, Bremen

WHITE LEAD
2 cs $13 Caracas, Maracaibo
2 cs $18 Colon, Corinto
1 cs $10 Colon, Buenaventura
60 kgs $9: Colon, Aspinwall
300 kgs $500 Ailsa, Pt au Prince
1 cs $8 Ailsa, Savanilla
6 kgs $42 Molega, St Domingo City

WHITING
3 bbls $6 C of Alexandria, Havana

YELLOW PAINT
6 cs $504 Buffalo, Manchester

ZINC ASHES
57 pgs $632 Gloucester City, Swansea
74 bbls $500 Rhaetia, H'burg

Charleston Exports.
For week ending Sept. 28.

ROSIN
2,468 bbls, Sendemander, L'pool

TURPENTINE
150 cks, Sendemander, L'pool

San Francisco Exports.
For week ending Sept. 18.

BORAX
386lb, J D Spreckels, Honolulu

CANDLES
100 bxs, S N Castle, Honolulu
10 bxs, W S Bowne, Honolulu
25 bxs, San Blas, Central America
167 bxs, San Blas, Mexico
20 bxs, C D Bryant, Honolulu

CEMENT
10 bbls, San Blas, Central America

FERTILIZERS
880 bgs, W S Bowne, Honolulu

GINSENG
2,219lb, Oceanic, China

OIL LINSEED
50 gls, San Blas, Central America

OIL LUB
440 gls, San Blas, Central America

OIL OLIVE
20 gls, San Blas, Mexico

PAINT
17 pgs, San Blas, Central America
28 pgs, San Blas, Mexico

QUICKSILVER
15 flks, San Blas, Mexico

SOAP
142 bxs, S N Castle, Honolulu
45 bxs, J D Spreckels, Honolulu

SPICES
10 pgs, San Blas, Central America
16 pgs, San Blas, Mexico
5 pgs, J D Spreckels, Honolulu

STARCH
757lb, San Blas, Mexico

TALLOW
2,659lb, San Blas, Central America

WHITE LEAD
1,200lb, San Blas, Central America

Boston Exports.
For week ending Sept. 27.

ACID
40 cbys, Odorilla, Trinidad
60 cbys, Stanley Mac, Grand Narrows

ALCOHOL
75 bbls, Daphne, St Pierre

ASHES, ZINC
46 bbls, Virginian, L'pool

ASBESTOS
2,250 bgs, City of Lincoln, London
30 bbls, Independence, Valparaiso

BEESWAX
12 cs, Samaria, Liverpool

CEMENT
10 bbls, Regina, St Pierre

DYEWOOD EXT
273 bxs, City of Lincoln, London

GLUCOSE
150 bbls, City of Lincoln, London

GREASE
363 bbls, City of Lincoln, London
89 bbls, Virginian, L'pool

OIL
200 cs, Odorilla, Trinidad
8 bbls, Worcester, Halifax
30 bbls, Virginian, L'pool

OIL LARD
400 cs, Independence, Valparaiso

OIL LUB
101 bbls, Coila, Halifax

OIL TALLOW
228 tcs, City of Lincoln, London

PAINT
10 pgs, Forest City, Digby

PHOSPHATE
60 bbls, Anna, Port Lorne

PITCH
139 bbls, Byrtle, St Johns, N B
55 bbls, Lochiel, St Johns

ROSIN
5 bbls, Lochiel, St Johns

SOAP
85 bxs, Lochiel, St Johns

STARCH
5 bxs, Lochiel, St Johns

TAR
5 bbls, Lochiel, St Johns

SP T RP
5 bbls, Odorilla, Trinidad
7 bbls, Lochiel, St Johns

Philadelphia Exports.
For week ending Sept. 27.

BONEBLACK
10 bbls, Ohio, Liverpool

OIL LUB
180 bbls, Ohio, Liverpool

OIL CAKE
705 bgs, Montana, London

STEARINE
47 hhds, Ohio, Liverpool

TALLOW
35 hhds, Ohio, Liverpool

WAX PARAFFINE
300 bbls, Ohio, Liverpool
150 bbls, Montana, London

Baltimore Exports.
For week ending Sept. 19.

BARK
200 bgs, Maryland, London
562 bgs, Rossmore, Liverpool
252 bgs, Baltimore, Liverpool

BONES
37,650lb, Maryland, London

GREASE
82,000lb, Rossmore, Liverpool

OIL ANIMAL
5,000 gls, Capna. Rio Janeiro

OIL FOOT
3,600 gls Rossmore, Liverpool

OIL LARD
11,702 gls, Bengore Head, Belfast

OIL LUB
22,122 gls, Bengore Head, Belfast

OIL CAKE
444,090lb, Brookfield, Leith

OLEOSTOCK
54,200lb, Maryland, London

ROSIN
150 bbls, Priscilla, Rio Janeiro
300 bbls, Bengore Head, Belfast

SOAP
20 bxs, Baltimore, Liverpool

STEARINE
122,000lb, Rossmore, Liverpool

SPIRITS TURPENTINE
500 gls, Capna, Rio Janeiro

WAX, PARAFFINE
38,902lb, Maryland, London

GOODS ON THE WAY TO THE UNITED STATES BY SAIL.

Auckland
TO NEW YORK.
Essex, 5,215 cs kauri gum
E Vernon, —— cs kauri gum

Calcutta
TO NEW YORK.
Austriana, 2,498 bgs saltpeter, 2,706 bgs cutch
George Skolfield, 1,488 bgs cutch, 9,666 bgs linseed, 300 cs shellac
Anglo American, 2,933 bgs saltpeter, 4,998 bgs cutch, 240 cs button lac, 200 cs castor oil, 1,600 bgs ginger
Thiorva, 1,147 bgs saltpeter, 2,000 bgs cutch, 12,792 bgs linseed, 400 cs shellac
Sam Skolfield, 4,014 bgs cutch, 50 cs button lac, 400 bgs ginger
Assyria, 2,010 bgs saltpeter, 4,640 bgs, 3,250 cs cutch, 25 cs button lac, 500 cs castor oil, 1,424 bgs ginger
Bangalore, 22,765 bgs linseed
Garfield, 3,836 bgs saltpeter, 1,500 bgs & 1488 bxs cutch, 249 cs shellac, 17 cs button lac.
Charles Dennis, 25,711 bgs linseed

TO BOSTON
Patagonia, 1,316 bgs saltpeter

Cirgenti
TO CHARLESTON
Emmanuele, 500 tns brimstone seconds

TO PHILADELPHIA
Teresina Bruno, 369 tns brimstone seconds

Hiogo
TO NEW YORK
Undaunted, 746 tubs camphor, 895 cs oil camphor, 300 cs wax, 500 cs oil fish
Eclipse, 1,466 pcls camphor, 900 tons brimstone, 100 cs vegetable wax, 125 cs oil camphor, 24 cs cuttlefish bone

Hong Kong
TO NEW YORK
James G Bain, 250 pcls cassia, 140 cs essential oil, 117 cs gall nuts
Hallgerda, 1,000 pcls cassia, 650 cs Saigon cassia
Agenor, 150 pcls cassia
Norwhal, 80 pcls cassia

Licata
TO CHARLESTON
Emanuele, 500 tons seconds brimstone
Maria Stella, 600 tns brimstone seconds
Maria della Salute, 600 tns brimstone seconds

Singapore
TO NEW YORK
Liguri, 8,003 pcls gambier, 2,030 pcls sago flour, 1,681 pcls gum copal, 108 cs cutch
Elise, 11,774 pcls gambier, 1,288 pcls sago flour, 421 pcls tapioca flour, 3,246 pcls flake tapioca, 2,528 pcls black pepper, 253 pcls white pepper, 418 pcls pearl tapioca, 3,993 pcls gum copal, 419 pcls cube gambier
S R Lyman, 6,731 pcls gambier, 1,683 pcls black pepper, 849 pcls pearl tapioca, 844 pcls flake tapioca, 325 pcls gum copal, 90 cs essential oil
Mariner, 3,681 pcls gambier, 421 pcls cube gambier, 1,933 pcls gum copal, 1,682 pcls black pepper, 2,028 pcls pearl tapioca, 425 pcls tapioca flour, 1,274 pcls sago flour; also 50 cs essential oil and 329 cs gum copal transshipped

TO BOSTON
Thomas A. Goddard, 4,200 pcls gambier, 169 pcls Cube gambier, 336 pcls pearl tapioca, 169 pcls flake tapioca, 252 pcls black pepper, 51 pcls white pepper.
Mystic Belle, 5,041 pcls gambier, 840 pcls sago flour, 211 pcls cube gambier, 169 pcls pearl tapioca, 168 pcls flake tapioca, 252 pcls black pepper, 35 pcls cutch.

West Coast South America
TO BOSTON
Cheshire, 8,000 bgs nitrate soda
TO CHARLESTON
Seatoller, 6,000 bgs nitrate soda
Aconcagua, 5,000 bgs nitrate soda
Emma L Shaw, 6,000 bgs nitrate soda
TO NEW YORK
Cassandra, 8,000 bgs nitrate soda
Annie Reed, 7,000 bgs nitrate soda
P. J. Carleton, 10,000 bgs nitrate soda
Routenbeck, 10,000 bgs nitrate soda
Caldera, 17,000 bgs nitrate soda
TO PHILADELPHIA
Edwin Read, 12,000 bgs nitrate soda

RECORD OF VESSELS.

PORT & NAME.	SAILED.	LAST REPORTED.
Auckland		
Essex	June 30..	
E Vernon.	Aug 5..	
Calcutta.		
Thiorva	May 10..	St Helena, Aug 14
Austriana	May 23..	
G W Skolfield	May 20..	
A American..	May 23..	
Sam Skolfield	May 30..	
Patagonia	June 24..	
Assyria	July 9..	
Bangalore	July 29..	
Garfield	Aug 15..	
C Dennis	Aug 15..	
Girgenti.		
Emmanuele..	Aug 5..	
Teresina Brun	Aug 14..	Tarifa Sept, 8
Hiogo.		
Undaunted	May 13..	St Helena, Sept 3
Eclipse	June 30..	
Hong Kong.		
J G Bain..	June 22..	
Hallgerda	July 12..	
Agenor	Aug 8..	
Narwhale	Aug 20..	
Licata.		
Emanuele	July 22..	
Maria Stella..	Aug 17..	
Maria d. S.	Aug 22..	
Singapore.		New Anjer, June 12
Liguri	May 2	St Helena, Sept 3
T. S. Goddard	June 3..	New Anjer, July 15
Mystic Belle..	June 28.	New Anjer, July 15
Elise	July 3..	New Anjer, Aug 2
S R Lyman	July 11..	
Mariner	Aug 9..	
W. C. South America.		
Cassandra	June 9..	
Annie Reed	June 25..	
P. J. Carleton.	June 29..	
Seatoller	July 4..	
Routenbeck..	July 23..	
Aconcagua	July 13..	
Cheshire.	July 13..	
Edwin Reed..	July 20..	
Caldera.	July 27..	
Emma L Shaw	Aug 9..	

Origin of Petroleum and Natural Gas.*

The enormous consumption of petroleum and of natural gases frequently raises the question as to the probability of the proximate exhaustion of the supply; and without doubt many fear to adopt the use of the oil, from a feeling that if such use once becomes general the demand will exceed the production, the price will rise indefinitely, and old methods of illumination, and old forms of fuel, will have to be reverted to. From this point of view it is most interesting to inquire what are the probabilities of a continuous supply; and such an investigation leads at once to the question, "What is the origin of petroleum?" In the year 1877 Prof. Mendeleff undertook to answer this question: and as his theory appears to be very little known, and has never been fully set forth in the English language, I trust you will forgive me for laying a matter so interesting before you. Dr. Mendeleff commences his essay by the statement that most persons assume, without any special reason—excepting, perhaps, its chemical composition—that naphtha, like coal, has a vegetable origin. He combats this hypothesis and points out, in the first place, that naphtha must have been formed in the depths of the earth. It could not have been produced on the surface, because it would have evaporated; nor over a sea bottom because it would have floated up and been dissipated by the same means. In the next place he shows that naphtha must have been formed beneath the very site on which it is found—that it cannot have come from a distance, like so many other geological deposits, and for the reasons given above, namely, that it could not be waterborne, and could not have flowed along the surface, while in the superficial sands in which it is generally found no one has ever discovered the presence of organized matter in sufficiently large masses to have served as a source for the enormous quantity of oil and gas yielded in some districts; and hence it is probable that it has risen from much greater depths under the influence of it its own gaseous pressure, or floated up upon the surface of water, with which it so frequently associated.

The oil-bearing strata in Europe belong chiefly to the Tertiary or later geological epochs; so that it is conceivable that in these strata, or in those immediately below them, carboniferous deposits may exist and may be the sources of the oil; but in America and in Canada the oil bearing sands are found in the Devonian and Silurian formations, which are either destitute of organic remains or contain them in insignificant quantities. Yet if the immense masses of hydrocarbons have been produced by chemical changes in carboniferous beds, equally large masses of solid carboniferous remains must still exist; but of this there is absolutely no evidence, while cases occur in Pennsylvania where oil is obtained from the Devonian rocks underlying compact clay beds, on which rest coal bearing strata. Had the oil been derived from the coal, it certainly would not have made its way downwards; much less would it have penetrated an impermeable stratum of clay. The conclusion arrived at is, that it is impossible to ascribe the formation of naphtha to chemical changes produced by heat and pressure in ancient organized remains.

One of the first indices to the solution of the question lies in the situation of the oil bearing regions. They always occur in the neighborhood of, and run parallel to, mountain ranges—as, for example, in Pennsylvania, along the Alleghenies; in Russia, along the Caucasus. The crests of the ranges, formed originally of horizontal strata which had been forced up by internal pressure, must have been cracked and dislocated, the fissures widening outwards, while similar cracks must have been formed at the base of the ranges; but the fissures would widen downwards, and would form channels and cavities into which naphtha, formed in the depths to which the fissures descended, would rise and manifest itself, especially in localities where the surface had been sufficiently lowered by denudation or otherwise. It is in the lowest depths of these fissures that we must seek the laboratories in which the oil is formed; and once produced, it must inevitably rise to the surface, whether forced up by its own pent-up gases or vapors, or floated up by associated water. In some instances the oil penetrating or soaking through the surface layers loses its more volatile constituents by evaporation, and, in consequence, deposits of pitch, of carboniferous shales, and asphalt take place; in other cases, the oil, impregnating sands, at a lower level, is often found under great pressure, and associated with forms of itself in a permanently gaseous state. This oil may be distributed widely according to the nature of the formations or the disturbances to which they have been subjected; but the presence of petroleum is not in any way connected with the geological age of the oil-bearing strata: it is simply the result of physical condition and of surface structure.

According to the views of Laplace, the planetary system has been formed from incandescent matter torn from the solar equatorial regions. In the first instance this matter formed a ring analogous to those which we now see surrounding Saturn, and consisted of all kinds of substances at a high temperature, and from this mass a sphere of vapors, of larger diameter than the earth now has, was gradually separated. The various vapors and gases which, diffused through each other, formed at first an atmosphere round an imaginary centre, gradually assumed form of a liquid globe and exerted pressures incomparably higher than those which we experience now at the base of our present atmosphere. According to Dalton's law, gases when diffused through each other behave as if they were separate; hence the lighter gases would preponderate in the outer regions of the vaporous globe, while the heavier ones would accumulate to a larger extent at the central portion, and at the same time the gases circulating from the center to the cir-

*Address of William Anderson, M. Inst. C. E., as president of the Section of Mechanical Science, British Association.

cumference would expand, perform work' would cool in consequence, and at some period would assume the liquid or even the solid state, just as we find the vapor of water diffused through our present atmosphere does now. That which is true of changes of physical condidition, Henri St. Claire Deville in his brilliant theory of dissociation, has shown to be equally true with respect to chemical changes; and the cooling of the vapors forming the earth while in its gaseous condition was necessarily accompanied by chemical combinations, which took place chiefly on the outer surface, where oxides of the metals were formed; and as these are generally less volatile than the metals themselves, they were precipitated on to what there then was of liquid or solid of the earth, in the form of metallic rain or snow, and were again probably decomposed, in part at least, to their vaporous condition. The necessary consequence of this action is that the inner regions of the earth must consist of substances the vapors of which have high specific densities and high molecular weights—that is to say, composed of elements having high atomic weights—and that the heavier elementary substances would collect nearer the center, while the lighter ones would be found nearer the surface. Our knowledge of the earth's crust extends but to an insignificant distance; yet, as far as we do know it, we find that the arrangement above indicated prevails. Hydrogen, carbon, nitrogen, oxygen, sodium, magnesium, aluminum-silicon, phosphorus, sulphur, chlorine, potassium, calcium, substances whose atomic weight ranges from 1 to 40, became condensed, entered into every conceivable combination with each other, and produced substances the specific gravity of which averages about 2½, never exceeds 4, and are found near the immediate surface of the globe.

But the mean specific gravity of the earth as determined by Maskelyne Cavendish and others certainly exceeds 5, and consequently the inner portion of our globe must be composed of substances heavier than those existing on the surface, and such substances are only to be found among the elements with high atomic weights. The question arises, What elements of this character are we likely to find in the depths of the earth? In the first place, since gases diffuse through each other, a certain proportion of the elements of high atomic weight will also be found on the surface of the earth. Secondly, the elements forming the bulk of the earth must be found in the atmosphere of the sun—if, indeed, the earth once formed part of its atmosphere; and of all the elements, iron, with a specific gravity exceeding 7, and with an atomic weight of 56, corresponds best with these requirements, for it is found in abundance on the surface of the earth; and the spectroscope has revealed the very marked presence of iron in the sun, where it must be partly in the fluid and partly in the gaseous state; and consequently iron in large masses must exist in the earth, so that the mean specific gravity of our planet may well be 5, the value which has been determined by independent means.

It is not easy, however, to define in what condition the mass of iron which must exist in the heart of the earth is likely to be. Iron is capable of forming a vast number of combinations, depending upon the relative proportion of the various elements present. Thus, in the blast furnace, oxygen, carbon, nitrogen, calcium, silicon, and iron are associated, and produce, under the action of heat, besides various gases, a carburet of iron and slag, the latter containing chiefly silicon, calcium and oxygen—that is to say, substances similar to those which form the bulk of the surface of the earth. But these same elements, if there be an excess of oxygen, will not yield any carburet of iron; and the same result will follow if there be a deficiency of silicon and calcium; because of the large proportion of oxygen which they appropriate. In the same way, during the cooling of the earth, if oxygen, carbon and iron were associated, and if the carbon were in excess of the oxygen, the greater part of the carbon would escape in the gaseous state, while the remaining part would unite with the iron. It is certain that in the heart of the earth there must have been a deficiency of oxygen, because of its low specific gravity; and the agument is supported by the fact that free oxygen and its compounds, with the lighter elements, abound on the surface. Further, it must be presumed that much of the iron existing at great depths must be covered over and protected from oxygen by a coating of slag; so that, taking all these considerations into account, it is reasonable to conclude that deep down in the earth there exist large masses of iron in part at least in the metallic state or combined with carbon.

The above views receive considerable confirmation from the composition of meteoric matter, for it also forms a portion of the solar system, and originated, like the earth, from out of the solar atmosphere. Meteorites are most probably fragments of planets, and a large proportion of them include iron in their composition, often as carbides, in the same form as ordinary cast iron—that is to say, a part of the carbon is free and a part is in chemical union with the iron. It has been shown, besides, that all basalts contain iron, and basalts are nothing more than lavas forced by volcanic eruptions from the heart of the earth to its surface. The same causes may have lead to the existence of combinations of carbon with other metals.

The process of the formation of petroleum seems to be the following. It is generally admitted that the crust of the earth is very thin in comparison with the diameter of the latter, and that this crust incloses soft or fluid substances, among which the carbides of iron and of other metals find a place. When, in consequence of cooling or some other cause, a fissure takes place through which a mountain range is protruded, the crust of the earth is bent, and at the foot of the hills fissures are formed, or at any rate the continuity of the rocky layers is disturbed, and they are rendered more or less porous, so that surface waters are able to make their way deep into the bowels of the earth, and to reach occasionally the heated deposits of metallic carbides, which may exist either in a separated condition or blended with other matter. Under such circumstances it is easy to see what must take place. Iron, or whatever other metal may be present, forms an oxide with the oxygen of the water; hydrogen is either set free or combined with the carbon which was associated with the metal, and becomes a volatile substance—that is, naphtha. The water which had penetrated down to the incandescent mass was changed into steam, a portion of which found its way through the porous substances with which the fissures were filled, and carried with it the vapors of the newly formed hydrocarbons, and this mixture of vapors was condensed wholly or in part as soon as it reached the cooler strata. The chemical composition of the hydrocarbons produced will depend upon the conditions of temperature and pressure under which they are formed. It is obvious that these may vary between very wide limits, and hence it is that mineral oils, mineral pitch, ozokerite and similar products differ so greatly from each other in the relative proportions of hydrogen and carbon. I may mention that artificial petroleum has been frequently prepared by a process analogous to that described above.

Such is the theory of the distinguished philosopher, who has framed it not alone upon his wide chemical knowledge, but also upon the practical experience derived from visiting officially the principal oil producing districts of Europe and America, from discussing the subject with able men deeply interested in the oil industry, and of collecting all the available literature on the subject. It is needless to remark that Dr. Mendeleeff's views are not shared by every competent authority; nevertheless the remarkable permanence of oil wells, the apparently inexhaustible evolution of hydrocarbon gases in certain regions, almost forces one to believe that the hydrocarbon products must be forming as fast as they are consumed, that there is little danger of the demand ever exceeding the supply, and that there is every prospect of oil being found in almost every portion of the surface of the earth, especially in the vicinity of great geological disturbances. Improved methods of boring wells will enable greater depths to be reached; and it should be remembered that, apart from the cost of sinking a deep well, there is no extra expense in working at great depths, because the oil generally rises to the surface or near it. The extraordinary pressures, amounting to 300 pounds per square inch, which have been measured in some wells, seem to me to yield conclusive evidence of the impermeability of the strata from under which the oil has been forced up, and tend to confirm the view that it must have been formed in regions far below any which could have contained organic remains.

Aluminous Cake.

Aluminous cake as it occurs in the British market offers to paper makers a cheap source of sulphate of alumina, a salt extensively used in the sizing of paper pulp in the beater engine. The amount of aluminous cake consumed for this purpose in Britain alone is very great, while the quantity shipped from this to other countries in Europe and to America is also very considerable. Its application is confined to the manufacture of cheap printing papers, although for what reason does not appear very clear because sometimes its composition and its purity enables it to be applied to the production of finer grades of papers, although its suitability depends upon the quantity used per ton of paper, as well as its quality with respect to its freedom from iron.

Aluminous cake is prepared from china clay and sulphuric acid (oil of vitriol). Its preparation is very carefully carried out, especially with regard to the avoidance of contamination with iron in any form, because it is generally accepted that the existence of this substance in any quantity in the material with which paper pulp is sized throws a yellowish shade throughout the sheet of finished paper. The intensity of this shade depends, of course, upon the quantity of the aluminous salt used, and upon the nature and quality of the paper which is to be sized. If it be very high in quality; the presence of iron causes a slight change in the shade of the paper after it is dried on the cylinders of the paper machine and exposed to the atmosphere for some time. This change is due to the deposition of the oxide of iron, which, of itself, is dark brown in color, upon the fiber. In those cases where temporary whiteness is only requisite no such consideration need be observed. The manufacturers of this article therefore attend with more or less care to this point in order to produce an aluminous cake as free from iron salts as is practically possible with the nature of composition of the raw material from which it is manufactured. Its mode of preparation is follows:—

The china clay is first calcined by being heated on the bed of a reverberatory furnace until all hydroscopic, and practically the whole of the combined water has been driven off. The calcined clay is now withdrawn and cooked, and consists essentially of an anhydrous silicate of alumina, together with other substances which, in our particular case, may be looked upon as impurities, namely, a small percentage of lime, and a little silicate of iron, a portion of which, however, is doubtless decomposed during the calcining operation. The calcined clay is then removed when cold, and is finely ground in a mill suitable for the purpose, the ground portion being passed through a very fine sieve. The coarse granules of clay, which do not pass through the sieve, return to the mill, and are re-ground, whilst the sieved portion is used for mixing with the oil of vitriol. This mixing of the clay with the oil of vitriol is the most important operation in the preparation of aluminous cake, and is generally carried out according to exact measurement, in large cast-iron vessels, or of other material lined with lead, and fitted with agitators with which the mixture is stirred. The clay is introduced into the "mixer" simultaneously with the acid in suitable proportions, and the acid of suitable strength. A very violent reaction takes place, in which the sulphuric acid splits up the silicate of alumina (clay), liberating the silica, and combining with the alumina to form sulphate of alumina. Any lime, and indeed the greater part of the silicate of iron, also oxide of iron, which are present in the calcined clay are also acted upon, forming soluble salts, which, as a matter of fact, constitute the impurities of aluminous cake. After the violent action has subsided, and the thick putty-like mass begins to get stiffer, the charge of clay and acid is dropped through a door in the bottom of the mixer into a large iron wagon with moveable sides, where it is kept warm, and allowed to remain for twelve or more hours to enable the chemical action to cease. After the lapse of this time the moveable sides of the iron wagon are removed, and the mass of aluminous cake, which is still hot and comparatively soft, is loosened, and by means of a screw worked automatically with suitable machinery, is pushed forward about half an inch at a time underneath the knife of a huge guillotine, which cuts the face of the block in a vertical direction as the knife descends, the aluminous cake falling in fragments into a wagon placed immediately underneath. The cut cake is then stored in heaps until it appears dry, or until all further possibility of the acid acting upon the clay has ended. In this state it is placed in bags and sold to the paper makers. Its composition is fairly regular, and may be represented by the following analyses of the English made article:

ANALYSES OF ALUMINOUS CAKE.

	"A"	"B"
	Pr. ct.	Pr. ct.
Sulphate of alumina.....	41·80	39·49
Free sulphuric acid.....	·84	2·65
Sulphate of peroxide of iron....	·45	·50
Silica, undecomposed clay, etc., or substances insoluble in water....	24·90	20·48
Water, lime, magnesia, loss, etc.	32·01	36·97
	100·00	100·00

The quality of "A" is superior to that of "B," because it contains considerably more sulphate of alumina, less free sulphuric acid and sulphate of peroxide of iron, and more insoluble matter. The amount of free acid in "B" is very high and is really unusual. Where it contains this ingredigent in such quantity the aluminous cake is somewhat soft and appears damp and dull in color.

Aluminous cakes seldom contain much sulphate of lime, and if they do, this impurity does not affect their applicability in the manufacture of paper. Nor, indeed, does the presence of a small quantity of free acid such as that contained in "A," because it can always be neutralized by the soda contained in the resin size used along with aluminous cake in the process of sizing paper pulp. Excepting dirt, the sulphate of peroxide of iron (ferric sulphate) is the only impurity which the cake usually contains, and it is this toward which the paper maker has such an objection. As a matter of fact, however, the purposes for which aluminous cake is used are such as not in most cases to be influenced by the presence of a small quantity of sulphate of iron like that which exists in ordinary aluminous cake. The iron salt will, of course, have a telling effect upon the finished paper, should it be present in abnormal quantity, say to the extent of four or five per cent., but as a general rule it does not contain anything like this quantity. The amount of anhydrous sulphate of alumina which it usually contains is from 40 to 42 per cent. (equal to from 11·93 to 12·52 per cent. alumina (Al_2O_3). This sulphate is the real sizing material, and that for which the cake is used and, in practice, its percentage amount should always be regular or within certain limits.

The distinguishing feature of aluminous cake when compared with other aluminous compounds used by paper makers for sizing, lies in the fact that it contains a certain percentage of silica and undecomposed clay which are insoluble in water, but serve as loading material when it is added in the crude solid state to the pulp in the beater engine. In the manufacture of common news and cheap printings when loading substances are used, this insoluble matter in the aluminous cake remains with the fiber, and appears in the finished sheet of paper, representing so much ash.

In virtue of this fact, the insoluble matter possesses a value of its own, corresponding to its equivalent in weight and value of china clay, which, as is well known, is the most commonly used loading material in the paper trade.

The amount of insoluble matter thus added to the pulp will vary with the quantity used, but assuming that 10 lbs. of aluminous cake are used for sizing 100 lbs. of paper, then, as it contains 25% of silica and undecomposed clay, the amount of this will appear as 2.5% ash in the finished paper. This represents about 3 lbs. of ordinary china clay. Taking note of this, but neglecting its influence in the cost of producing the paper, in order to arrive at the true cost of the sulphate alumina in the "cake" as compared with other forms of sulphate of alumina, whether these be commercially pure sulphate of alumina, alumino ferric cake or ordinary potash and ammonia alums, an allowance must be made, due to the presence of this insoluble matter, in favor of the cost of the cake, equal to the value of a corresponding amount of china clay. Thus, if 20 cwts. of aluminous cake, containing 40% anhydrous sulphate of alumina and 25% insoluble matter, cost say 50s., and china clay costs at the same time 25s. per ton, then by deducting the nett value of 5 cwts. of insoluble matter, taken at the rate of the value of an equivalent quantity of china clay (because it replaces this), or 6s. from the original cost of the aluminous cake, the remainder is the true cost of the alumina. The cost, therefore, of aluminous cake, considered as sulphate of alumina, after making the foregoing allowance for the loading material in it, is not 50s. but really 44s. per ton.

Aluminous cake should be free from grit and dirt of any kind, and it is usually added directly to the pulp in the beater engine, no care on the part of the paper maker being taken to free it from these impurities before use. The insoluble matter consists of varying quantities of silica and undecomposed clay. Although these are in a fine state of division, they do not possess the same properties as china clay. Neither of them feel so soft nor so soapy when rubbed between the fingers. The silica is in a state of very fine powder, but nevertheless does not possess the power of communicating that body and surface frequently required in finishing paper, and any lack of surface on papers sized with aluminous cake is very likely due to the presence of this ingredient. Again the requirements of the printer demand that paper when used on the high-speed printing machines of the present day, will not yield any dust, and as it is difficult to fix silica within the fiber, when in a very fine state of division on soft sized papers, especially when starch cannot be or is not used, the probability is that this silica, and indeed the undecomposed clay as well is thrown off on unwinding the reel as it enters the printing machine, and causes the trouble in question, as well as stopping up the type.

It is useful and instructive to be able to compare the several amounts of sulphate of peroxide of iron in those aluminous cakes which are offered in the market, and for this purpose a common basis of comparison is generally adopted. Thus, if the amount of sulphate of iron be calculated on 100 parts of anhydrous sulphate of alumina, in each of the analyses of the foregoing samples, the relative quantities of iron salt are strictly comparable. Anhydrous sulphate of alumina is really the useful ingredient to paper makers in aluminous cake, and the one by which it bought by them, and therefore, to compare one sample with another, all impurities should be calculated on say 100 parts of sulphate of alumina. In the case of the impurity, viz., sulphate of iron, in the analysis marked "A" we have 1·076 parts, and in "B" 1·269 parts on 100 parts anhydrous sulphate of alumina. It is then evident which sample is the purer as regards the iron. With respect to the equal quantities of anhydrous sulphate of alumina, and if it be desired to compare the amount of iron in "aluminous cake" with that contained in any other form of "commercial sulphate of alumina," it is only necessary to first calculate the amount of sulphate of iron in the latter, in 100 parts of anhydrous sulphate of alumina, and then compare it with that in aluminous cake.

Moreover, what is true in the above method of comparing one sample of aluminous cake with any other kind of commercial sulphate of alumina, with respect to the iron contained in them is also true of the insoluble matter contained in aluminous cakes.

As, however, no other form of aluminous sizing compounds occur in the market which contains "loading" materials, excepting aluminous cake, this mode of comparison is strictly limited to them.—*Chemical Trade Journal.*

DRUG MARKET.

Note—*Our prices are for large lot except when otherwise specified, and buyers of small quantities must expec to pay an advance on these figures.*

The prices current will be found on pages 49 and 50.

TUESDAY EVENING, Oct. 1, 1889.

Although business has not been as active as during the preceding two weeks, the demand has been unusually good for the last week in the month. There are few features in the market worthy of special comment, the general tone being one of steadiness and changes for the most part of small consequence. Mail advices from London to the 20th ult. are to the effect that business had not yet recovered from the effect of the dock strike. Citric acid and ipecac were lower, cascara sagrada was unsettled, quinine was barely steady, while crude camphor was firmer.

The changes of the week in this market have been as follows:

ADVANCED.	DECLINED.
Opium,	German ergot,
Morphine,	Sm. fl. manna,
Russ. cantharides,	Lycopodium,
Ginseng,	Serpentaria.
Bavaria cassia,	
Cassia buds.	

Opium.

A further slight advance has occurred in the price of opium on the spot, although nothing new is cabled from Smyrna regarding the position there. The Dutch company is still in that market for supplies, but we have not yet learnt the full extent of its purchases. So long as it is a factor high prices may be expected to rule in Smyrna. The demand here has been fairly active during the week, but sales have seldom exceeded single cases, and in most instances broken lots have had the preference. Up to to-day the general quotations for standardized were $3 35@3 40, but at the close we heard of nothing offering below the outside figures, and in some cases up to $3 50 was asked. For natural the quoted range was $3 50@3 75 as to holder and test.

Morphine was to-day advanced 10c per oz by the manufacturers, the quotations now being $2 50 in bulk, $2 55 in ounce vials and 2 75@2 80 in eighths, inclusive.

Quinine.

The jobbing demand for quinine has been quite active throughout the week but speculative buyers have shown no disposition to operate. The market has rested on a steady basis, 27@28c being the quotations for foreign brands in large bulk, according to quantity and seller. Cables from London yesterday reported a firmer market there, but without affecting the holders on this side.

Receipts of quinine for the week	12,500
Since Jan. 1	1,968,026
Corresponding period last year	1,385,775

Miscellaneous.

Alcohol sells freely at the current rates, but dealers are not disposed to sell much ahead. Prices remain firm at $1 98@2 08, as to quantity

Borax is still very scarce and with a brisk demand from consumers prices are firmly maintained. We quote 9@9½c, as to quantity, for powdered and 9⅝@9¾ for crystals, as to quantity.

Carbolic acid is firm, under a good jobbing demand.

Castor oil is without quotable change, but it is reported that some sellers are shading the general quotations about ½c. It is intimated that some important developments will take place in this market soon.

Citric acid remains steady at the late decline to 42c in kegs but no impro vement in the demand is noted.

Russian cantharides have recovered from the late depression, the cheap lots that were pressing on the market having been taken up. The spot quotations now are 90@95c but less will be accepted for lots to arrive. Chinese cantharides are in a little better demand at unchanged prices.

Codliver oil is unchanged. For Norwegian there is a steady and increasing demand, and the market is firm at the former range of $21 50@25, as to the brand and quantity.

German ergot is again unsettled, and we hear that sales in a jobbing way have been made at 32c, the reported transactions aggregating 2,000 lbs. Spanish is firm but quiet at 40@45c, as to quantity.

Hops continue to rule easy in price, and buyers show no inclination to increase the size of their orders. We continue to quote:

	Cents.
State, new, best	13 @14
State, do., good	11 @12
State, do., good	8 @10
State, 1888, best	12 @13
State, do., prime	10 @11
State, do., common	7 @ 9
State, 1887, best	5 @—
State, do., good lots	3 @—
California, 1888, choice	12 @—
Do. common and fair	7 @

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Manufactured by the
FARBENFABRIKEN, formerly Friedr. Bayer & Co., ELBERFELD.

SULFONAL IS PROTECTED BY UNITED STATES PATENT AND TRADE MARK.

August 1st, 1889. We quote: per oz

Sulfonal-Bayer, in oz. bottles	$1.35
In lots 25 ozs., " "	1.25
" 100 " " "	1.20

In ⅛ ounce bottles five cents per ounce additional.

We also prepare Tablets and Pills of Sulfonal-Bayer.

Phenacetine-BAYER.

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We quote in

1 oz. bottles	$1.00
In lots of 25 ozs.	.95
" " 100 ozs.	.90

We prepare Pills of Phenacetine-Bayer containing 2 grs. 4 grs. and 5 grs. each.

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Quinine, Cinchonine, Cinchonidine, Morphine, Codeine, Aqua Ammonia.	Sulphate and other salts of	Ammonium, Potassium, Sodium, Silver, Ammonium, Ether,	Bromide. Nitrate.

Hypophosphites, Purified, Bismuth, Subnitrate, Spirits of Nitre, C. P. Acids, Resublimed Iodine, Tannin.

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Sulphate of Quinine,
Acetanilid, [Antifebrin.]
Muriate of Cocaine, Boehringer.

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SIR J. B. LAWES, LONDON, Citric Acid.

HOFFMANN & SCHOETENSACK, LUDWIGSHAFEN, Benzoic Acid ex Toluol, Borate Manganese, Ess. Oil Almonds.

WE ALSO OFFER ON SPOT:

Chlorate Potash, Artificial Oil Sassafras, Red Arsenic, Cascara Sagrada, Hypophosphites, Lime, Soda, Potash, Japanese Oil Peppermint, Senega, Serpentaria, Damiana Balsam Peru, Menthol, Sarsaparilla, Cantharides, Carbolic Acid, Crystals and Liquid.

Swan Brand.

(Trade Mark No. 6,113.)

SAPONE D'OLIO D'OLIVO F. GUARANTEED PURE

Pure White

CASTILE SOAP,

Made in Italy out of the best quality of stock, equal to Contis brand, while the price is much lower.

GENERAL AGENTS FOR THE U.S.:

CODMAN & HALL, BOSTON, MASS.
FULLER & FULLER CO., CHICAGO, ILL.
I. L. LYONS & CO., NEW ORLEANS, LA.
MOFFITT-WEST DRUG CO., ST. LOUIS, MO
JAS. E. DAVIS & CO., DETROIT, MICH.
R. A. ROBINSON & CO., LOUISVILLE, KY.
LANGLEY & MICHAELS, SAN FRANCISCO, CAL.
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Polar Star Norwegian Codliver Oil

FRENCH, RICHARDS & Co.
Proprietors of
PURE BUCK LEAD.
Philadelphia, Pa.

ROGERS & PYATT,

80 Maiden Lane, New York.
Manufacturers of
Bleached Shellac & Spirit Varnishes

Small flake manna is now offered at 35c, without stimulating the demand. Large flake is neglected, and is nominally quoted at 75@80c as to quantity and quality.

Quicksilver declined to-day in London to £9, and as a result this market is easier, 68@69c being quoted at the close. The demand is moderate and of a jobbing character.

Lycopodium is easier at 34c, and in a large way a shade less might be accepted. There is a fair demand but no business of consequence.

Carnauba wax is in good demand at unchanged prices. Sales of 2,000 lbs, of a prime grade are reported on private terms. The latest advices from Brazil partially confirm the previous report that carnauba wax is to be included in the export tax law now held under consideration by the government of that country.

Balsams.

There have been further arrivals of 10 cases Central American balsam copaiba and although first hands still quote 45c it is believed they would accept a shade less. Angostura from first hands is offered at 50@55c. There is no stock of Para outside of what jobbers hold. The jobbing quotations are without change and jobbers report a very good demand. Balsrm Peru remains easy with sales in a small way at 85@90c. Other balsams are unchanged.

Barks.

Cascara sagrada continues to be the chief feature of interest in this department. Very contradictory reports are in circulation regarding the position of this bark, and it is difficult to form a correct idea of the situation. For instance, it is reported that the "squeeze" being about over and the dealers who had sold short for September having either settled on a cash basis or bought and delivered the goods, the market is now easier. On the other hand we learn that sales of 4,000 lbs of prime thin bark were made to-day at 15c and that the sellers did not care to go on at that price owing to the evident desire to buy, shown parties who are believed to have sold largely for October delivery at comparitively low prices. Regarding the situation on the Pacific coast reports are even more conflicting. According to some holders there appear anxious to sell and are now soliciting bids, whereas a week ago they refused to quote. According to others the lowest quotations telegraphed from California are 14@15c delivered in New York, while the most bullish statement is that according to telegraphic advices the principal holder in Oregon, who is credited with a controlling interest in 150 to 250 tons, declines to accept less than 30c, while the chief holders in San Francisco refuse to entertain bids of less than 20c. At the close to-night prices in the spot market ranged from 14@15c for prime thin bark, 12@13c for mixed thick and thin, and 10@12c for thick, according to holder.

Essential Oils.

A moderate jobbing demand is reported for most of the articles on the list, and few important changes in prices are noted.

Peppermint oil is reported to be firmer owing to the partial withdrawal of the bearish influences before alluded to. The general quotations are now $1 85@1 95 for Western, and $2@2 20 for Wayne county in bulk. In the country recent sales of Western have been to New York parties at $1 82½ and bids of that price were subsequently refused for other lots. There is a fair demand and we note further sales of 500 lbs for export at $1 85. Case oil also is stronger and $2 50@2 75 are the general quotations, though in one instance we heard that $2 47½ was named as acceptible for a single case. There has been a considerable business done at and around $2 50 during the week, the reported transactions amounting to about 100 cases.

Pennyroyal and tansy oils are in better demand at 90c for the former and $1 90 for the latter.

Sassafras oil continues to arrive slowly, and there seems to be little to come forward from the country. The market is firm at 44@46c, as to seller, condition and quantity.

Wintergreen oil is firm at $1 85@1 90, with a good jobbing demand.

Gums.

Assafœtida is in fair request, and prices are maintained. Choice dry tears are scarce, both here and abroad, and for the few cases held in this market 15c is now wanted. For good to prime block, 10@12c is quoted, while fair is held at 9c and common at 7½@8c. Arabics and other mucilaginous gums are selling fairly at firm and unchanged prices. Owing to an epidemic of cholera and to wet weather in Syria the crop of Turkey tragacanth, it is said, will be small and of poor quality. Cables to-day from London reported an advance in the price of tragacanth there. Quotations here are unchanged. Chicle is very scarce and firmly held at 45c.

Roots.

The market for roots is still somewhat uninteresting, trading for the most part being confined to jobbing quantities. Culvers root is in better demand, at 10c. Ginseng is scarce, supplies coming forward slowly. Buyers continue to show reluctance to operate, but holders are very firm, and want more for their goods, the quotations now being $2 75@3 10, as to quality. Golden seal is unsettled, and does not attract large buyers. A few small sales have been made at 37@40c, but it is intimated that 35c will buy. Jalap is firmer with jobbing sales up to 15c, though larger quantities are yet procurable at 14c. Western senega is not selling to any extent, though no doubt a considerable business might be done at a concession from current rates: The principal holders in the west have been sending bearish reports to this market, though when approached with orders decline to fill them, on the ground that they have no stock available for prompt delivery. Other dealers in the west assert that very little root is coming in and that the position grows stronger daily, as the season for digging is about over. The quotations here are 38@40c, and in the west 36c is named but there is none to be had at that price. Serpentaria has sold at 31c 1,000 lbs being reported at that, but there seems to be no more procurable at 31c as a bid of that figure was declined and 32½c asked for arrival. Sarsaparilla is quiet and unchanged.

Shellac.

The improvement in the shellac market continues and although there has been no quotable change since our last a further advance in the near future is held to be highly probable on the strength of foreign advices and the position of stocks here and abroad. At the London sale to-day another advance of 3s was realized on T N and garnet, and Calcutta reports continue to foreshadow higher prices. The jobbing demand has been brisk, particularly during the past two days, and through this channel, and sales between dealers, some 1,800 cases additional to those previously reported have changed hands. The shipments of shellac from Calcutta during September were 2,700 cases to the United Kingdom and Continent and 1,600 cases to the United States.

Spices.

The demand for spices is improving as the fall season advances. During the past week a good business has been done in cloves, nutmegs and cassia, but the sales were almost entirely of jobbing parcels. Cassia buds are firm, with an upward tendency, and there are rumors of an attempt to corner the spice. Race ginger continues in active request, and we note sales of 800 bags at 3@3½c. Jamaica ginger is firmer, most of the outside lots having been cleared up.

Mr. Harry W. Garraway, of David Taylor & Sons, London, arrived here on Monday last, and will remain in the United States for several weeks.

SAFFRON

Pure VALENCIA and ALICANTE

CLAYTON ROCKHILL,

SOLE AGENT FOR HEINTZ & KREISS. 2 Platt St., NEW YORK.

HERM. A. HOLSTEIN,

CONSTANTINOPLE and KIZANLIK

PHILADELPHIA 1876. Group III. for Otto of Rose.

Otto of Rose, Opium, Gum Tragacanth, Wool and all Oriental Products.

PHILADELPHIA 1876. Group VI. for Gums Opium, &c.

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AUGUST GIESE, - 2 Cedar Street, NEW YORK.

LEO BERNARD & CO.

Vanilline Crystals

Is the Aromatic Principle of Vanilla Beans.

One ounce sent free to any part of the United States on receipt of $5,56.

228 PEARL ST., - - - NEW YORK.

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Manufacturer of highly

"Concentrated Essential Oils, and Essences"

of high specific gravity, free from Hydrocarbon, readily soluble in dilute alcohol.

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AUGUST GIESE, 2 Cedar Street, NEW YORK.

BALLER'S OIL of LEMON.

—ALSO—

Oils of Bergamot and Orange.

Quality guaranteed equal to any brand.

Quotations and Samples furnished on application.

CODMAN & HALL, 104 Water St., Boston.

CHARRAS & CO.,

Distillers of

ESSENTIAL OILS.

NYONS, (DRÔME) FRANCE.

30 Platt St., New York.

RHUBARB!

ALL GRADES OF THIS ROOT:

WHOLE, CUT, CHIP, GROUND, SAWDUST and POWDERED

Importers and Manufacturers,

DODGE & OLCOTT,

NEW YORK.

HIGHEST STANDARD QUALITY of NORWEGIAN

CODLIVER OIL

THREE LEAF CLOVER BRAND,

GUARANTEED STRICTLY NON-FREEZABLE.

FRED'K PAULSEN & CO., Sole Importers, 19 Old Slip, NEW YORK.

The Roessler & Hasslacher Chemical Co.,

MANUFACTURING AND IMPORTING CHEMISTS.

Chloroform Purified, U.S.P.

Manufactured from Acetone, under U. S. patent No. 383,992.

G. & S. Sulphate of Quinine.

Gold and Silver Brand guaranteed to test according to the U. S. Ph.

Dr. Seyferth's Acetanilid.

Four times more effective than Antipyrine.

OXALIC ACID, YELLOW PRUSSIATE of POTASH

AND OTHER CHEMICALS FOR

PHARMACY AND THE ARTS.

73 Pine Street, NEW YORK.

HERO FRUIT JAR CO.,

MANUFACTURERS OF

Patent Bottle Stoppers for Liquids and Powders.

Al Kinds of Loose Cap Bottle Stoppers.

Collapsible Tubes for Perfumery, Colors, &c., &c.

Sprinklers, Catsup and Bitter Tubes.

Full Line of Sheet Metal, Cast and Spun Screw Caps for Screw Neck Bottles of all kinds and for all purposes.

Write for Samples and Prices.

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Cor. Gaul & Adams Sts.,

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Olive Oils and Castile Soaps,

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TRADE MARK WH No. 1866.

DEUTSCHE GELATINE-FABRIKEN,

(GERMAN GELATINE WORKS.)

Formerly CH. W. HEINRICHS & F. DRESCHER & CO.,
Hoechst-on-the-Main.
Offer their

GELATINES OF ALL GRADES

—FOR—

Druggists, Dry Plate Makers, Grocers, Confectioners, &c., &c.
Through their Sole Agent for the U. S.

Max Zeller,

37 BOWERY, P. O. BOX 2824, NEW YORK.

Max Zeller has constantly on hand a full supply of all gradesof goods manufactured by u

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We distill pure Oil of Eucalyptu Globulus as a by-product in the man ufacture of our

EUCALYPTUS BOILER FLUID,

and are therefore enabled to place it in quantities at a lower rate than has heretofore been asked for it.

DOWNIE B. I. P. CO.,
204 Market St.
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4 Redcross St., LIVERPOOL, ENGLAND, and 91 Hudson St., NEW YORK.

SEEDS

THE ALBERT DICKINSON CO.

Dealers in Timothy, Clover, Hungarian, Millet, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Pop Corn, &c.

Specialties: **FLAX SEED** and **BIRD SEEDS.**

Warehouses: 115, 117 & 119 Kinzie St., OFFICES, 115 KINZIE ST., 104, 106, 108 & 110 Michigan St., **CHICAGO, ILL.**

GUM SHELLAC

ALL GRADES.

HOWE & FRENCH, BOSTON.

H. TROMMSDORFF

Erfurt Chemical Works, Erfurt, Germany,

OFFER TO THE TRADE A FULL LINE OF

Scientific, Pharmaceutical, Technical Preparations & Chemicals,

THROUGH THEIR AGENTS

EIMER & AMEND.

NEW YORK.

CHEMISTS' SUPPLIES

Strictly Chemically Pure Acids,
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Superior Bohemian Glassware,
Superior Filterpapers,
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Perfect Balances and Weights,
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Selected Drugs, Chemicals and Pharmaceutical Preparations.
All Testing Appliances and Reagents

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SOLE AGENTS FOR

H. Trommsdorff's Chemicals,
Joseph Kavalier's Bohemian Class,
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ANCHOR MAN'F'G. CO.

ONE STAVE BARREL TRADE MARK

DETROIT, MICH.

MANUFACTURERS OF

One Stave Barrel

KILN DRIED HEADING

—AND—

COOPERAGE SUPPLIES.

Works at Anchorville, Mich.

Office, 44 & 45 Buhl Block, Detroit, Mich.

ADDRESS ALL LETTERS TO DETROIT.

Awards at the Paris Exposition.

Messrs. Leo. Bernard & Co., received the welcome intelligence by cable on Monday that the following houses they represent, received the prizes named at the Paris Exposition :—

Messrs. G. De Laire & Co., manufacturers of vanilline, heliotropine, etc., etc., grand prize which is the highest award.

Messrs. L. Leffray, curer of bourbon beans, Mexican style, gold medal.

D. Pappazoglou's oil of rose, silver medal.

Messrs. Leo Bernard & Co., the fortunate sole agents in this country, are to be congratulated on the result, as it confirms their claims in regard to the quality of the well known brands of raw materials handled by them. Perfumers and soap makers did not require that fact to be established from an official source, as the constant use of the articles satisfied them some time ago of the uniformity and purity of the goods.

Annual Report on Phosphate Rock.

Mr, P. C. Trenholm sends us the following shipments of phosphate rock from Sept. 1, 1888 to Aug. 31, 1889 and consumed at Charleston and Beaufort, S. C.:—

From Charleston Coastwise & RR.	Crude.
Baltimore	65,028
Philadelphia	26,102
New York	12,972
Newtown Creek, N. Y.	6,252
Weymouth, Mass.	15,107
Richmond, Va.	5,441
Wilmington, Del.	7,976
Mantua Creek, N. J.	1,641
Elizabethport, N. J.	1,530
Barren Island, N. Y.	6,443
Petersburg, Va.	1,000
Seaford, Del	1,201
Wilmington, N. C.	6,787
Orient, L. I.	2,685
Milford, Conn.	610
Boston	500
Newcastle, Del.	585
Union Landing, N. J.	702
So. Ca. RR. North and Westward	8,777
C. & S. RR. South and Westward	36,774
N. E. RR. Northward	714
Total	208,827
Foreign:	
United Kingdom	2,750
Liverpool	840
Bremen	170
Genoa	111
Belfast	2,000
Total	5,871
Consumed at Charleston, estimated	80,000
Grand Total, Tons	294,698

Prom Beaufort.	Foreign	Coastwise
September, 1888	4,846	1,066
October, "	2,919	5,795
November, "	——	891
December, "	5,093	6,233
January, 1889	11,683	6,922
February, "	8,748	8,971
March, "	16,406	13,072
April, "	14,037	3,775
May, "	12,708	5,953
June, "	16,187	2,990
July, "	26,419	7,152
August "	8,890	3,650
Total	127,940	66,520
Consumed at Beaufort	15,000	

Recapitulation:—	Crude.
Coastwise from Charleston	162,562
West and South from Charleston	45,551
North by RR. from Charleston	714
Foreign from Charleston	5,871
Consumed at Charleston	80,000
Charleston, total tons	294,698
Coastwise from Beaufort	66,520
Foreign from Beaufort	127,940
Consumed at Beaufort	15,000
Beaufort, total tons	209,460

Shipments and consumption of phosphate rock from and at Charleston & Beaufort &c. from Sept. 1, 1885 to Aug. 1,1889:—

	Crude.				
	1885'86	1886'87	1887'88	1888'89	
Coastwise from Charleston	100,600	145,759	154,664	162,562	
By RR. from Charleston	30,172	27,941	35,588	46,265	
Foreign from Charleston	9,962	8,980	3,050	5,871	
Consumed at Charleston, est'm'd.	60,000	60,000	60,000	80,000	
Coastwise from Beaufort	27,288	12,506	10,844	66,520	
Foreign from Beaufort	151,144	174,398	159,891	127,940	
Consumed at Beaufort, estimated.	9,000	10,000	13,000	15,000	
Total	444,166	439,586	437,035	504,158	

Review of the Drug Market.

(From Messrs. Gehe & Co.'s Semi-annual Circular.)

While German trade in general has had a fairly prosperous year in 1888, the drug and chemical industries have been touched by the general improvement to a very slight extent only. The imports of articles for use of the chemical industry and of pharmacy show a total of 243 millions of marks in 1888, against 219 millions in 1887, i. e., an increase of 24 millions of marks; and if the average values of 1887 had been maintained there would have been exactly the same result, so that all the advances and declines of the year have neutralised one another. The exports in the same category have been—in 1888, 236 millions of marks, against 226 millions in 1887. If the average prices of 1887 had also been maintained in this department, there would have been an increase of 17 millions, instead of 10 millions. The moral of these figures is that, while the Germans paid the same average prices for what they bought from abroad in 1888, in 1887, they have had to sell their own products to the foreigner at a slight reduction.

Araroba—The collection has kept pace with the increased consumption, and the present values, which have only given a loss to the importers, have not yet experienced an improvement. On August 1 there were about 80 packages in the first hands in Hamburg, but the quality was not particularly good, but mostly very damp and poor in chrysarobin.

Balsam of Peru—Hamburg, which continues to be the principal market for Peruvian balsam, has constantly received considerable arrivals, which have depressed the value of the article, and slowly caused further slight reductions. The San Salvador exporters unanimously say that with the present market value the production is no longer remunerative, and that the shipment must very speedily fall off. If this should be correct, the moment will have arrived for manifesting more interest in the article, and to think of covering the requirements largely. In addition to our former communications on Kremel's test for Peruvian balsam we may now say that our opinion of that test remains unchanged, although we have now examined over 100 samples of different imports. No definite relation exists between the point of acidification and the ester point; the former is subject to great fluctuations. The point of saponification of genuine balsam is not below 270°. Quite recently balsam of Peru has again been recommended as a remedy for tuberculosis, to be taken internally, but its efficacy is already denied in many quarters. This may also cause the proposal to replace the balsam by a mixture of its two active principles, cinnamein and cinnamic acid, to fall to the ground. The preparation of such a mixture would not be difficult, as cinnamein, directly obtained from the balsam, is already commercially obtainable under the name of oil of Peruvian balsam.

Castoreum.—The London Hudson's Bay Company is at present quite without stock of Canadian castoreum, and, being also without information of any shipments from North America, it may be taken for granted that no auction will be held until the middle of December, the usual summer auction having also fallen out. What remained of the December and February auctions is also mostly consumed; second quality is altogether wanting, and if small private consignments do not arrive from America soon, good quality may not be obtainable for the next few months without difficulty, and at a considerably increased price.

Cubebs.—All parcels of cubebs which have been brought to market thus far have easily found purchasers. Truly fine natural cubebs, such as were formerly met with, are rare now. Most parcels are mixtures of fruit in all grades of maturity, and the following four types may, as a rule, be easily separated: (*a*) Small, unsightly, very shrivelled fruit, scarcely 2 mm. in diamet r, greyish-brown to greyish-black, gathered in the first stage of maturity. The stalk is one and a half times or twice as long as the fruit, the seed is shrivelled, and often scarcely perceptible. (*b*) Grey-black fruit, 4 to 4½ mm. in diameter, closely but not very deeply shrivelled; stalk of equal length or half as long again as the fruit; seed partly developed and round (in that case fixed to the base), brown externally, greyish-yellow internally, of horny appearance towards the rim, or sometimes shrivelled and, if so, of a browner color. (*c*) Fruit of 5 mm. or more in diameter, stalk 5 to 7 mm. in length, color greyish-brown, lines deeper and not so numerous; seeds generally fully developed, ball-shaped, pale brown, internally yellowish-white, often starchy, rarely horny. (*d*) Besides these three varieties, most parcels contain from 5 to 10 per cent. of yellowish-brown fruit, covered with a corky layer which peels off easily. The outer shell of the fruit is weak, and yields to pressure by the finger; the seed is imperfectly developed, adhering at the base in a somewhat shapeless mass. These fruits also appear to be genuine, but to have been arrested in their development by fungus or climatic action. These four varieties may be considered genuine, but spurious fruit also occurs as an admixture. This may be detected by the fact that the seed firmly adheres to the inner coating of the shell. Sometimes the fruit is round and without stalk, sometimes pear-shaped and stalky. The parcels which

Mexican VANILLA BEANS.

"KIENZLER'S"

SELECT.

Bourbon VANILLA BEANS.

OLIVE OIL "GARIBALDI" BRAND STRICTLY PURE.

BRANDT & KIENZLER, 76 WILLIAM ST., NEW YORK.

JOHN SOFIO & CO.'S

Essential S Oils.

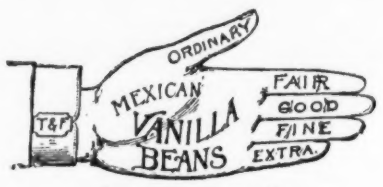
MANUFACTURERS OF

Lemon, Bergamot AND Orange.

The quality is uniform and guaranteed absolutely Pure. Samples and Quotations furnished on application to

THOMAS LEEMING & CO., 18 College Place, New York.

Sole Agents for United States and Canada.



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54 Cedar St., New York.

PURE OTTO OF ROSE,

SPECIALTY OF

SHIPKOFF & CO.,

DISTILLERS AND EXPORTERS.

KIZANLIK, Bulgaria.

Branch House in New York : - - - 9 Burling Slip.

" " London : 19 Ivy Lane, Newgate St., E.C.

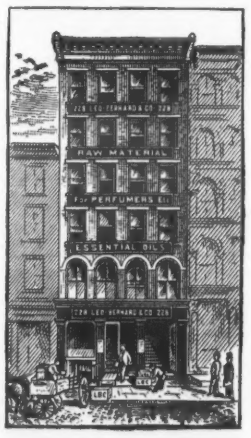
THE OTTO OF ROSE which this house distils and exports is known above all by the absolute purity of its quality and the unexcelled sweetness and strength of its odor. It is guaranteed to be the finest essence produced in the famous Rose Valley of Bulgaria.

LEO BERNARD & Co.

Raw Materials for Perfumers and Soap Makers.

VANILLA BEANS.

ESSENTIAL OILS.



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Is the Aromatic Principle of

ANGOSTURA TONKA BEANS.

It gives a lasting flavor to the Vanilla Extract.

One ounce sent free to any part of the U. S. on receipt of $1.81.

SPECIAL PRICE FOR QUANTITY.

228 PEARL STREET, NEW YORK.

323 Sacramento Street, SAN FRANCISCO.

117 Boulevard Richard Lenoir, PARIS.

WHOLESALE PRICES CURRENT.

☞Our Quotations are those of Importers and Manufacturers, for original packages and large lots. For broken lots higher prices are asked.

Oils, Etc.

Vegetable Oils.

Linseed Domestic Raw, in bbls, ₩ gal	—	@60
Boiled, in bbls	—	@63
Calcutta, Raw, in bbls	—	@60
Western on spot	—	@58
Rapeseed, in bbls	65	@67
Mustard	60	@63
Cottonseed, Crude Prime	32	@33
Crude, off quality	30	@—
Yellow Summer Prime,	40	@48
Yellow Summer, off qual.	36	@38
Yellow Summer, cooking	—	@—
White Summer	—	@—
Yellow Winter	54	@58
White Winter	55	@58
Soap stock	1¾	@ 1⅞
Olive	71	@72
Soap Stock	5½	@ 5¼
Palm, prime ₩ lb	—	@ 5⅞
Off quality	5	@ 5½
Cocoanut, Domestic	5	@ 5⅛
Ceylon	5¼	@ 5¾
Cochin	7⅛	@ 7¾
Cuban		@ 5¼
Castor, No. 2	13¼	@13⅜
No. 3	11¼	@11½
Poppy	55	@57
Maize	54	@55
Rosin, first run ₩ gal.	—	@ 9
Second run	—	@11
Third run	—	@14
Fourth run	—	@17

Animal and Fish Oils.

Whale, natural winter ₩ gal.	45	@46
Bleached winter	47	@48
extra bleached winter	49	@50
Bleached spring	46	@47
Sperm, natural winter	75	@76
Bleached winter	80	@82
Natural spring	69	@71
Bleached spring	74	@76
Sea elephant, bleached winter	55	@56
Unbleached winter	50	@51
Lard, prime city	53	@54
prime, western	53	@54
Extra No. 1	46	@50
No. 1	42	@44
No. 2	37	@40
Menhaden, prime crude	23	@24
Prime southern	—	@—
Brown strained	26	@27
Light strained	28	@29
Extra bleached white	36	@38
Bleached winter	32	@33
Bank	25	@26
Straits	26	@27
Herring	—	@—
Oleo	—	@—
Cod, Domestic, prime	30	@35
Black Fish, Crude	—	@—
Natural	—	@—
Bleached Winter	—	@—
Degras, English	2¾	@ 2⅞
French	—	@—
Tallow, Prime	48	@50
Neatsfoot, Prime	57	@60
No. 1	45	@55
Elaine Red	36	@39
Saponified Red ₩ lb	4¾	@ 5

Mineral Oils.

Paraffine, High viscosity ₩	18	@21
23½@24 gravity	11½	@12
25 gravity	10½	@11
28 gravity	8½	@ 9
Red Paraffine, 21 @22 gravity	14	@14½
22½@23 gravity	12	@13
Neutral filtered, 32 grav., bloomless	18	@20
white, 33 gravity	33	@35
32@34 gravity, bloomless	10	@18
32 gravity, wool grade	13	@15
West Virginia, natural 29 gravity	23	@25
Franklin, natural, 32 gravity	—	@—
Smith's Ferry, 33@34 gravity	7	@ 8
Black reduced, 29 gravity, 25@30 c. t.	8	@ 9
29 gravity, 15 cold test	8½	@ 9½
29 gravity, zero	—	@—
Summer	6	@ 7
Cylinder, light filtered	15	@20
dark filtered	14	@21
extra cold test	—	@—
dark steam refined	10	@18

Oil Cake.

Calcutta cake, city ₩ ton	—@	—
City domestic	—@	—
Western, in bags	24 50@25 00	
Cottonseed cake at Memphis	—@19 00	
do do New Orleans	22 00@	—

Oil Meal.

State domestic meal ₩ ton	28 00@29 00	
Cottonseed meal at Memphis	—@17 00	
do do New Orleans	23 00@	—

Wax Candles, Lard Tallow, Etc.

Paraffine wax, crude, 124@126 m p ₩ lb	4½@	4¾
128@130 m. p	4½@	5
refined 135 m. p	8½@	8¾
Candles, Paraffine, 4s and 6s	8	@11
12s	8	@12
Adamantine, 6s, 16 oz	9	@10
14 oz	8	@ 9
12 oz	7	@ 8
12s, 16 oz	10	@11
14 oz	9	@10
12 oz	8	@ 9
Patent sperm, 4s and 6s	35	@36
Sperm, 4s and 6s	25	@26
Stearic acid	10	@11
Spermaceti	21	@22
Lard	6 00	@7 15
Stearine	5½	@ 7¼
Tallow	4½	@4 9-16

Naval Stores.

Sp. turpentine	48¼@48½	I	1 80 @—
St'd rosin	1 02½@—	K	1 85 @1 90
G d st'd	1 05 @—	M	2 00 @2 05
E	1 15 @1 22½	N	2 25 @2 30
F	1 30 @1 35	W G	2 55 @—
G	1 40 @—	W W	2 65 @2 70
H	1 45 @1 50		

Paints, Varnishes, Etc

White Lead, Zinc, Etc.

American Dry White Lead ₩ lb	6¼@7	
Pure White Lead, in oil	7 @7¼	
English White Lead, in oil	8½@8¾	
Zinc White, Paris, G S, 50 bbls	7½	less 4 ₩ ct
G S, 25 bbls	7⅝	2 ₩ ct
G S, 10 bbls	7¾	1 ₩ ct
R S, 50 bbls	7⅝	4 ₩ ct
R S, 25 bbls	7¾	2 ₩ ct
R S, 10 bbls	7⅞	1 ₩ ct
Antwerp R S, 50 bbls	7	4 ₩ ct
R S, 25 bbls	7	2 ₩ ct
R S, 10 bbls	7	1 ₩ ct
G S, 50 bbls	7¼	4 ₩ ct
G S, 25 bbls	7¼	2 ₩ ct
G S, 10 bbls	7¼	1 ₩ ct
G S in poppy oil	10½@10¾	
R S in poppy oil	8¾@ 9¼	
French in Varnish	16	@20
American Extra Dry	4½@ 4¾	
Off color	4 @ 4½	
In oil	6¼@6¾	
In varnish	14 @18¾	
L. Z. O. German zinc	5¾@ 5	
China white	10½@12	
Flake white	10½@12	
Cremnitz white	15 @20	

Dry Colors.

REDS.

Carmine No. 40 ₩ lb	3 10@4 20	
Crocus martus, imported	1¾@	2¼
Standard American	1¾@	2¼
Colcothar	3½@	6
Indian red, American	3½@	6½
Standard American	2 @	3
English	5½@	7
Tuscan red, English	9½@	11
Turkey red, English	9½@	14
Litharge, English flake	9 @	9½
American powdered	6½@	6¾
Red lead, English	8½@	9
American	6¾@	7
Orange mineral, English	8¾@	9½
French	9¼@	9¾
German	8¾@	9½
American	8 @	8½
Rose pink, English	9 @	9½
American	8 @	—
Vermilion, imported English	— @	85
Am. quicksilver, bulk	65 @	70
Am. quicksilver, bags	66 @	—
Chinese	88 @	90
Trieste	85 @	87
American	11½@	12
Artificial	8 @	35
Venetian red	1 40	@1 50
English prime	1 40	@1 50
second quality	1 05	@1 25
American	1 00	@1 35

YELLOWS.

Chrome yellow	10 @	25
Ocher, Rochelle	1 35	@1 50
Washed Dutch	5 @	—
Washed French	1½@	2¼
Washed Nat Oxford, Lump	6½@	6¾
Washed Nat Oxford, Powd'r	7 @	7¼
Golden	3½@	4
Domestic	¾@	1¼
Domestic, for O C & W P	¾@	1

GREENS.

Chrome, Chemically pure	22	@26
Extra	12	@13
Super	9	@11½
Common	—	@ 8
Paris, Pure	20	@—
In pulp	11	@12
French Verdigris	40	@42

BLUES.

Chinese Blue	45	@50
Prussian Blue	20	@35
Soluble Blue	40	@55
Ultramarine Blue	7	@25
Celestial Blue	5½@	8
Blue verditer	25	@30
refiners'	60	@70

BROWNS.

Sienna, Italian, burnt & powdered	5 @	6½
burnt lumps	1¾@	3½
raw powdered	5 @	6½
raw lumps	1¾@	3½
American, burnt & powdered	1½@	1¾
raw	1½@	1¾
Vandyke brown, English	6 @	8
American	3 @	3¾
Spanish brown	½@	1

Miscellaneous.

Barytes, prime white ₩ ton	16 50	@18 50
foreign floated	19 50	@21 50
domestic floated	26 00	@32 00
off color	11 50	@14 00
crude No. 1	8 50	@ —
No. 2	7 75	@ —
No. 3	7 50	@ —
Chalk	2 00	@ —
kiln dried ₩ 100 lbs.	45	@ —
air dried	33	@ 35
China clay ₩ ton	13 50	@18 00
Cobalt oxide	2 60	@ 2 90
Feldspar ₩ ton	14 00	@ —
Silex	14 00	@25 00
Whiting, commercial ₩ 100 lbs.	40	@ 50
gliders'	57½	@ 70
Paris white, English cliffstone	1 05	@ 1 15
American	65	@ 80
French talc	1¾	@ 1¼
terra alba	70	@ 75
American terra alba No. 1	65	@ 70
No. 2	38	@ 40
Blanc fix ₩ lb.	2½@	3
Dentists' plaster ₩ bbl.	1 35	@ 1 50
Calcined plaster ₩ bbl.	1 25	@ 1 50
Marble dust ₩ bbl.	90	@ 1 00
Pumice stone, original cks. ₩ lb.	1¾@	2
selected lumps in bbls.	3¼@	—
powdered pure in bbls.	2¼@	2½
Rotten stone original cks.	4½@	5½
selected lumps	6 @	10
powdered, in bbls.	3½@	3½
Rubbing stone	@	7
Bronze powder	@	—
Brocades	45 @	1 00
Smalt, German blue	15 @	—
super black	— @	—
Putty bulk	1¾@	2½
bladders	2 @	2½
tins	— @	2½

Glues.

Extra white ₩ lb.	17	@20
Medium white	13	@15
Cabinet	12	@14
Low grade	8	@10
Foot stock, white	9¼@	13½
brown	4 @	8
Irish	12½@	14½
French	9½@	22½
English	10½@	15

Metallic Paints.

Brown ₩ ton	$18 00@25 00	
Red	27 50@32 50	
Yellow	27 50@32 50	

Colors in Oil.

Black coach, Japan ₩ lb.	18½@20	
in oil	12 @13	
Drop black	8½@14½	
Ivory black	8½@14½	
Lamp black	12 @20	
Chinese blue	35 @40	
Prussian blue	20 @45	
Ultramarine blue	12 @18	
Burnt sienna	7 @14	
Raw sienna	7 @14	
Burnt umber	7 @11	
Raw umber	7 @11	
Vandyke brown	7 @12½	
Chrome green	8 @14	
Paris green	16 @18½	
English drop black	12½@14	
American drop black	7½@10	
Frankfort drop black	25 @30	
Lampblack, prime	27½@33	
medium	19½@26	
2d quality	13 @19	
low grade	6½@10	
Naphtha, black	60 @—	
Fine calcined velvet black	16 @25	
Medium calcined velvet black	12 @15	

Varnish Gums.

Copal, Sierra Leone, cleaned	37½	@40
Zanzibar, bold white	85	@95
medium white	75	@80
bean and pea	45	@50
Manila, pale	17	@20
bright amber	13	@15
standard	9	@10½
Damar, Batavia	19	@21
Kauri, standard	13½	@16
No. 2	12	@14
hard scraped	22	@24
light hard scraped	28	@30
picture quality	65	@70
pale and fine selected	42	@65
Sandrac	22	@30
Asphaltum, Cuban, prime	4½	@ 5½
sandy	4	@ 5
Egyptian	8	@ 9

Glass.

WINDOW GLASS.

AMERICAN AND FRENCH SINGLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
26x28 to 24x36	17 75	16 25	14 75	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
24x36 to 26x28	26 00	25 00	23 00	....
36x60 to 40x60	26 50	24 50	23 00	....

AMERICAN AND FRENCH DOUBLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x to 10x15	$13 00	12 50	$12 00	$11 50
11x14 to 16x24	16 00	15 00	14 50	....
18x22 to 20x30	20 50	19 50	18 50	....
15x36 to 24x30	22 00	20 75	19 50	....
26x28 to 24x36	25 00	23 00	21 50	....
26x36 to 26x44	26 00	25 00	23 00	....
26x46 to 30x50	28 00	26 50	24 50	....
30x52 to 30x54	30 00	28 00	26 00	....
30x56 to 34x56	31 00	30 00	28 00	....
34x58 to 34x60	32 50	31 00	29 00	....
36x60 to 40x60	36 00	33 50	32 00	....

Discounts: Amer., 80@80&10%; French, 75&10%.

Drugs.

Opium.

Opium, in bond ₩ lb.	2 40	@3 00
duty paid (cases)	3 40	@4 00
as wanted	3 45	@4 00
powdered	4 50	@4 75
Morphine	2 50	@2 80
foreign	2 35	@2 50

Quinine.

Quinine American ₩ oz.	32	@ 39
Italian	27	@ 35
German	27	@ 35
Cinchonidia, American	4	@ 5
foreign	2	@ 5
Quinidia, German	24	@ 29

Miscellaneous.

Acid benzoic, German ₩ lb.	52	@ 55
English ₩ oz.	11	@ 12
boracic purified ₩ lb.	20	@
refined	14½	@14¾
flaky	14	@
carbolic, pure crystals bot	34	@ 35
drums	28	@ 30
citric, domestic	42	@ 42½
foreign	42	@ 42½
salicylic, bulk & boxes	1 20	@ 1 25
Alcohol, 94 p ct, free per gal.	1 98	@ 2 08
refi'd wood, 97 p ct	—	@ 1 15
95 p ct	—	@ 1 10
92 p ct	—	@ 1 05
Inodorous	1 50	@ 1 60
Cologne spirits, 188 p t	2 18	@ 2 28
Ambergris gray	30 00	@35 00
black	9 00	@12 00
Ammonia carb, foreign	7¾	@ 8
domestic	8	@ 8½
Bay rum imp, bulk	1 95	@ 2 00
Barbadoes tar	32	@ 35
Borax, refined city, bbls ₩ lb.	9½	@ 9½
Cal., bbls	8½	@ 9½
concentrated	7¾	@ 8¾
powdered	8¾	@ 9¼
Bromine	37	@ 38
Burgundy pitch	2½	@ 3
Cantharides, Russian	90	@ 95
Chinese	25	@ 30
Calomel, domestic	73	@ 75
English	1 05	@ 1 10
Castile soap, white	10½	@ 12
green, pure	6½	@ 9
mottled ordinary	4½	@ 4¾
pure	5¾	@ 6
Chian turpentine ₩ oz.	45	@ —
Chloroform	27	@ —
Colocynth apples, Trieste ₩ lb.	42	@ 45
pressed	—	@ —
Spanish	25	@ 28
Cacao butter	35	@ 40
Chloral hydrate, crystals	1 55	@ —
plates	1 25	@ —
Corrosive sublimate	70	@ 72
Cuttlefish bone, Trieste	21	@ 22
Dragon's blood mass	23	@ 28
reed	40	@ 45
Ergot, Spanish	40	@ 50
German	32	@ 35
Gelatine English	50	@ 60
French	30	@
American	85	@
Glucose	2	@ 3
Grape sugar	2¼	@ 3
Glycerine, German, refined, dms.	20	@ —
Amer'n, ref. bbls & cs	20	@ 22
No. 1	19	@ 21
Glycerine, crude	11	@ 12
Guarana, whole	1 20	@ 1 25
Powdered	1 30	@ 1 35
Iceland moss	5	@ 5½
Indian hemp (Canabis In)	7	@ 10
Insect powder	30	@ 35
Irish moss	6½	@ 12
Isinglass, Russian	3 50	@ 3 75
American ordinary	70	@ 75
prime	90	@ 1 50
Iodine, re-sublimed	3 30	@ 3 35
Licorice paste, domestic	6	@ 15
foreign	24	@ 28
Lupulin, American ₩ lb	—	@ 60
German	30	@
Lycopodium, prime	34	@ 36
Manna, large flake	75	@ 80
Small flake	—	@ 35
Sorts	25	@ 30
Menthol	1 45	@ 1 75
Musk, true grain ₩ oz	40 00	@42 00
Tonquin pods	25 00	@26 00
Canton grains	20	@ 1 00
Nitrate barium ₩ lb	7	@ 8
Strontia ₩ lb	8½	@ 9
Nux vomica, pockets ₩ lb	2	@ 4
Oil, Almond, sweet	20	@
Myrbane, American	16	@ 18
English	16	@ 18
German	—	@
Sesame ₩ bbl	70	@ 75
Castor, city, bbls & cases	14½	@ 14⅝
Cod liver Norwegian ₩ bbl	21 50	@25 00
Newf'land ₩ gal.	60	@ 65
Phosphorus ₩ lb	70	@ 75
Precip, red	88	@ 90
White	93	@ 95
Precipitated chalk, Eng. bk	4¾	@ 5
bbls	7	@ —
Potassium, bromide, bulk	33	@ 34
glass	42	@ 43
odide, bulk	2 65	@ 2 70
glass	2 75	@ 2 78
Prussiate, yellow	53	@ 60
Sago, pearl	3½	@ 3½
Flour	3½	@ 4
Sugar of milk cob	17½	@ 18½
Powdered	15½	@ 18
Sulphur, roll	—	@ 2¼
Flour	—	@ 3
Salicine	1 70	@ 1 75
Tamarinds ₩ keg	2 25	@ 2 75
Venice turpentine ₩ lb	18	@ 20
Wax, brown southern	23½	@ 25
State	25	@ 28
White, pure	40	@ 45
Japan	10	@ 10½
Carnauba	4	@ 4
Ceresin	10½	@ 11

Balsams.

Copaiba, Angostura ₩ lb	50	@ 60
Para	55	@ 60
Central American	43	@ 45
Fir, Canada ₩ gal	2 25	@2 50
Oregon	90	@1 10
Peru ₩ lb	85	@ 95
Tolu	28	@ 30

Barks.

Angostura ₩ lb	12	@ 14
Bayberry	5	@ 7
Buckthorn	5	@ 7
Cascara Sagrada	10	@ 15
Cascarilla	5	@ 7
Canella	7	@ 8
Cinchona, red	25	@ 28
yellow	12	@ 28
Coto	60	@ 95
Elm, common	7	@ 10
selected	13	@ 14
Loxa	—	@ —
Oak, white	3½	@
red	3½	@
Orange peel, West Indian	5½	@
Malaga prime	5	@ 10
Curacoa	7	@
Prickly ash	7	@ 7½
Pomegranate (of root	10	@ 25
Quebracho	12	@
Sassafras	4	@ 6
Simaruba	13	@ 16
Soap, whole	4½	@ 4¼
crushed	5½	@ 6

Beans.

Vanilla, Mexican ₩ lb	4 50	@10 00
Bourbon	4 00	@ 9 00
Tonka, Angostura	1 25	@ 1 40
Surinams	—	@ 1 15
Para	80	@ 1 10
Calabar	—	@ 25
St. Ignatius	14	@ 1

Berries.

Cubeb ₩ lb	1 50	@ 1 75
Juniper	2½	@ 3
Fish (Cocculus Ind)	4	@ 4
Laurel	5	@ —
Prickly ash	16	@ 18

Essential Oils.

Anise ₩ lb	1 60	@ 1 65
Almond (bitter)	2 50	@ 6 75
Bay, ₩ bottle of 22 ozs	6 00	@ —
Bay oil, ₩ lb	3 62½	@ 4 35
Bergamot	2 00	@ 2 60
Black pepper	65	@ 5 50
Cajeput	65	@ 80
Camphor	8	@ 9½
Caraway, seed	1 05	@ 1 40
chaff	40	@ 52
Cassia	1 20	@ 1 22½
Citronella	31	@ 33
Clove	1 20	@ 1 30
Copaiba	90	@ 1 00
Croton	95	@ 1 00
Cubebs	14 50	@15 00
Cumin, American	3 00	@ 4 50
Fennel	85	@ —
seed	1 50	@ —
Geranium, Turkish	3 00	@ 3 50
rose, French	8 00	@ 9 50
Gingergrass	2 25	@
Juniper, once rect	—	@
twice rect	1 75	@
wood	27	@
Lavender, garden	70	@ 85
flowers	2 25	@ 2 75
Lemon	1 00	@ 1 50
Lemongrass	70	@ —
Neroli, bigarade	40 00	@55 00
Portugal	27 50	@
Petale	50 00	@60 00
Nutmeg	2 50	@ 2 75
Orange, sweet	1 30	@ 1 75
bitter	2 50	@ 3 00
Origanum	18	@ 20
Peppermint, tin cans	1 85	@ 2 20
cases	2 50	@ 2 75
Pennyroyal	75	@ 90
Rose, ordinary ₩ oz	4 15	@ 4 70
special brands	4 50	@ 5 25
Rosemary, Trieste ₩ lb	55	@ —
French	—	@ 25
Flowers	70	@
Sandalwood	2 25	@10 50
Sassafras	42½	@ 45
Spearmint	1 75	@ 2 00
Tansy	1 75	@ 2 00
Thyme, red	21	@ 82½
white	30	@ 1 10
Wintergreen	1 85	@ 1 90
Wormseed	1 25	@ —
Wormwood	3 50	@ 4 00

Flowers.

Arnica ₩ lb	5	@ 8
Chamomile, German	22	@ 25
Roman	15	@ 22
Insect	22	@ 35
Lavender	5	@ 9
Rosemary	15	@ 20
Saffron, American	22½	@ 23
Alicante	6 50	@ 8 50
Valencia	14 50	@16 50

Gums.

Aloes, Cape ₩ lb	5	@ 5½
Barbadoes	15	@ 20
Curacoa		½@
Socotrine		@ 40
Arabic, 1st picked		½@ 97
2d picked		@ 72½

	3d picked	64½@	67
	4th picked	54½@	57
	Sorts	45 @	60
	Siftings	25 @	40
Senegal, picked		43 @	45
	sorts	26 @	28
Asafœtida		7½@	15
Benzoin		25 @	40
Camphor, refined, in bbls		31 @	—
	in cases	— @	32
		— @	45
Chicle		15 @	17
Euphorbium		48 @	60
Gamboge pipe and block		18 @	20
Gedda, siftings		— @	—
	sorts	28 @	35
Guaiac		10 @	11
Kino		72 @	75
Mastic		23 @	28
Myrrh		15 @	18
Olibanum, tears		6½@	7½
	sorts	22 @	23
Sandrac		25 @3	00
Scammony, Alleppo		6 00 @6	50
	Virgin	46 @	49
Tragacanth Alleppo, 1st flake		39 @	42
	2d flake	34 @	36
	3d flake	70 @	75
Turkey, 1st flake		53½@	55
	2d flake	40 @	45
	3d flake		

Herbs and Leaves.

Aconite	₩ lb	9 @	11
Althea		8 @	10
Belladonna		12 @	15
Buchu, short		4½@	7½
	long	15 @	17
Coca		25 @	28
Damiana		17 @	19
Digitalis		6 @	9
Eucalyptus		4 @	5½
Grindelia robusta		12 @	14
Henbane (hyosciamus)		9 @	12
Horehound		6 @	8
Jaborandi		15 @	20
Laurel		3½@	4
Lobelia		4 @	7
Matico		18 @	20
Marjoram, German		14 @	20
	French	14 @	—
Prince's pine		— @	8
Rose, red		90 @1	15
	pale	30 @	40
Rosemary		3 @	4
Sage, Italian		6 @	6½
Senna, Alex. nat		19 @	20
	siftings	16 @	17
	garbled and sifted	24 @	25
	Tinnivelly	7 @	20
Thyme		4½@	10
Uva Ursi		4 @	5
Yerba Santa		10 @	12

Roots.

Aconite	₩ lb	10½@	11
Alkanet		8 @	10
Althea, whole		— @	—
	cut	20 @	22
Angelica, German		10 @	12
	American	9 @	10
Arrowroot, Bermuda		31 @	35
	St. Vincent, bbls&cns	6½@	7
	Jamaica	10 @	11
Arnica		7½@	8
Belladonna		8 @	12
Blood		5½@	6
Burdock		7½@	8
Calamus, bleached		18 @	20
	unble'd, split & peeled	7 @	10
Canada snake, select		— @	—
Colchicum		10 @	10
Colombo		10 @	12
Culvers		10 @	11
Dandelion, German		10½@	11
	American cut	11 @	12
Elecampane		5 @	5½
Galangal		2 @	2½
Gentian		3½@	4½
Ginseng		2 75 @3	10
Ginger, Jamaica, unbleached		15½@	17
	American, bleached	17 @	19
	London, bleached	17 @	19
Golden seal		36 @	40
Hellebore, white, powdered		8½@	9
	whole	5½@	7
Ipecac, Rio		1 75 @1	85
Jalap		14 @	15
Kava Kava		15 @	16
Lady slipper		12 @	15
Lovage, American		40 @	50
	German	19 @	20
		5 @	7
Licorice, ordinary		12½@	20
	selected, in bdls	5 @	6
Mandrake		12 @	15
Orris, Florentine		48 @	75
	finger	5½@	7
	Verona	18 @	20
Pareira brava		16 @	18
Pellitory		25 @	30
Pink		8 @	10
Rhatany		35 @	80
Rhubarb, whole		45 @1	75
	cut	26 @	37½
Sarsaparilla, Honduras		5½@	6
	Mexican	6 @	—
	American	40 @	45
Senega, Southern		38 @	40
	Western	32½@	34
Serpentaria, Texas		8 @	10
Stillingia		— @	—
Squills, ordinary		4½@	5
	white, prime	10 @	11
Valerian, German		6 @	7
	Belgian	— @	15
	English	10 @	11
	Vermont	7 @	9
Yellow dock			

Seeds.

Anise, Italian	₩ lb.	7 @	10
	German	5½@	6
	star	25 @	28
Canary, Sicily		2½@	3
	Smyrna	2½@	2½
	Spanish	2½@	3
Caraway, Dutch		4½@	5½
	German	— @	—
Cardamom, Alleppy		60 @	90
	Malabar	55 @	90
	Mangalore	70 @1	50
Celery		10 @	10½
Colchicum		60 @1	00
Coriander, English		3½@	4
	French	4½@	5
	German	4 @	4½
Cummin		9 @	9½
Fennel, German		5 @	8½
Fœnugreek		2½@	2½
Guinea grains		8 @	8½
Hemp, Russian		2½@	3
	Smyrna	— @	—
Lobelia		25 @	30
Millet, domestic	₩ bush.	1 10 @	—
	foreign ₩ lb.	2½@	2½
Mustard, California yellow		3 @	3½
	brown	3½@	4
	Dutch	— @	—
	English	4½@	5
	Trieste brown	5½@	7
Poppy, white		12 @	14
Quince, German		28 @	35
	Russian	20 @	22
Rape, domestic		3½@	4
	English	— @	—
	German	3½@	4

Shellac.

D. C.	₩ lb.	30 @	31
Octagon B		25 @	26
V. S. O		25 @	26
Diamond I		24 @	25
S. S		23 @	24
Garnet, A C		15 @	16
T. N. quality		20 @	21
Natives		20 @	21
Button		25 @	28
Bleached		25 @	27

Spices.

Cassia, Batavia	₩ lb.	7½@	8
	China	4½@	4¾
	Saigon, rolls	24 @	32
	broken	23 @	28
	chips	6 @	8
	buds	13 @	13½
Cloves, prime Zanzibar		15¼@	15½
	Amboyna	24 @	25
	stems	4½@	5
Ginger, African		4¼@	4¾
	Calcutta	3½@	3¾
	Cochin	4¼@	16
Mace, Batavia		68 @	70
	Banda	— @	78
	Penang	75 @	80
Nutmegs, 110's		64 @	65
Pepper, Singapore		14¾@	15
	West Coast	13½@	14½
	Acheen, prime	13 @	14
	Penang, white	19½@	20
	Singapore, white	23½@	24
	red, Zanzibar	8 @	8½
	Bombay	6½@	7
Pimento, prime		6¾@	7

Chemicals.

Heavy Chemicals.

Alkali, 36 ₩ cent		1 20 @1	25
	refined, high test	1 15 @1	22½
Bleach, over 35 ₩ cent		1 72½@1	80
Saltcake		60 @	62½
Soda ash, carb, 48 per cent		1 25 @1	35
	high test	1 12½@1	15
	Caustic, 48 ₩ cent	1 20 @1	30
	high test	1 12½@1	15
	Newcastle, 48 per cent	1 25 @1	37½
	high test	1 15 @1	20
Soda bicarb, English		2 10 @2	35
	American	2 00 @2	50
	carbonate	1 75 @1	80
	caustic, 60 ₩ cent	2 52½@2	57½
	70 ₩ cent	3 32½@3	37½
	74 ₩ cent	3 32½@3	37½
	76 ₩ cent	3 32½@3	37½
sal, English		95 @1	00
	American	90 @1	10

Acids.

Acid, acetic		2 @	2¾
	chemically pure	16 @	17
	pure	5½@	8½
	oxalic	9½@	10½
	sulphuric, 60 deg	80 @	1¼
	66 deg	1 @1	75
	muriatic, 16 deg	95 @	1¼
	18 deg	1 @1	50
	20 deg	1¼@1	75
	22 deg	1⅝@2	
	nitric, 36 deg	4 @	4½
	38 deg	4½@	4¾
	40 deg	5 @	5½
	42 deg	6 @	6½
	tartaric, crystals	32 @	34
	powdered	33 @	34

Ammonias, Potashes and Fertilizing Chemicals.

Ashes, pot, 1st sorts	₩ lb.	4 @	4¼
	pearl	5 @	5¼
Potash, chlorate, English		13 @	14
	powdered	13 @	14
	carb	4 70 @	5½
	caustic	7½@	8
	cyanide, fused	39 @	40
	obl m'ure salt 48@50%	1 15 @1	20
	sulphate of, basis 90%	2 35 @2	37½
Kainit, 23% S. of P.	₩ ton	9 75 @11	00
Sylvinit, 27@35% S. F. P.	₩ unit	— 41 @—	42½
Aqua ammonia (in cbys) 10%	₩ lb.	3½@	3¾
	18%	— @	4¼
	20%	— @	6
	22%	6 @	7
	24%	10 @	11
Ammonia, sal, rough		6½@	7¼
	white	7½@	8
	lump	8½@	9
	sulphate	3 05 @	3 10
Potash muriate, ₩ 100 lb		1 80 @1	87½
	steamer	— @—	
AMMONIATES, ETC.:			
Azotine, ₩ unit		2 25 @	2 35
Blood, dried, red, ₩ unit, west		2 25 @	2 37½
	low grade, ₩ unit	2 15 @	2 20
Concentrated tankage, ₩ unit		2 17½@	2 20
Bones, rough, ₩ ton		20 00 @23	00
	ground, ₩ ton	25 00 @28	00
Bone black, refuse, ₩ ton		19 50 @21	00
Kieserite		7 60 @	8 00
Fish guano, dried		22 00 @23	00
	acidulated	12 00 @—	—
	wet	10 00 @10	50
Phosphate rock, f. o. b. Char'n		— @—	—
	undried	5 75 @	6 00
	dried	6 75 @	7 00
	ground	11 00 @11	50
Acid phosphate, 14% per unit		80 @	82½

Miscellaneous.

Acetate of lime, gray		1 80 @—	—
	brown	— @1	00
Alum, lump		1½@	1¾
	ground	1¾@	2
	Cake	1½@	1¾
Argols, crude Oporto		3 @	3½
	piate	21 @	23
	half refined	24 @	—
Arsenic, white		3½@	3¾
	red	5½@	6¾
Brimstone crude, best 2ds		19 75 @20	50
	3ds	18 87½@19	50
Copperas,		65 @	75
	powdered	1½@	1¾
Cream tartar, crystals, 99 p. c.		22½@	—
	powdered, 99 p. c.	24 @	—
Glauber salts		75 @	80
Epsom salts		1 15 @1	20
Nitrate of lead		9 @	10
	soda	1 87½@1	95
Rochelle salts		24 @	25
Sugar lead, brown		7½@	8
	white	12 @	13½
Saltpeter, crude		5½@	5¾
	refined	6 @	8
Vitriol, blue ordinary		5½@	5¾
	extra	— @	

Dyestuffs.

Acid picric best crystals	₩ lb.	50 @	55
Albumen prime egg		68 @	73
	imported blood	19 @	22½
	domestic blood	17 @	19
	No. 1½ blood	15 @	—
Alizarine		18 @	21
Annatto		10 @	25
	seed	4 @	6
Archil weed		7 @	15
Aurine		58 @	—
Barbary root, cut		4 @	—
Bichromate of potash, Scotch		10½@	11
	American	10½@	11
Bichromate of soda		8½@	11
Carmine of indigo		40 @	—
Cochineal, Teneriffe silver		28 @	30
	black	28 @	30
	gray black	33 @	35
	Mexican	— @	—
	ammoniac	— @	37
Cudbear, French		12 @	—
	concentrated	25 @	—
	English	12 @	30
Cutch, slab		7½@	7¾
	bag	5 @	5½
Dextrine		5½@	6¾
Divi divi	₩ ton.	35 00 @50	00
Fullers earth, lump	₩ lb	90 @	95
	powdered	1⅞@	2
Flavine		27 @	28
Fustic stick	₩ ton	20 00 @26	00
Gambier	₩ lb	8½@	8½
Garancine		8½@	9
Indigo, Bengal, low grade		80 @	85
	medium	1 10 @	1 20
	high grade	1 25 @	1 40
	Caracas	— @	—
	Kurpahs	75 @	1 05
	Gautemalna	60 @	75
	Manila	70 @	75
	Madras	65 @	85
Indigotine		3 00 @	4 00
Lac dye		9 @	15
Logwood stick	₩ ton	22 00 @26	00
Madder, Dutch	₩ lb	7½@	8½
	French	6 @	7
Myrobalans		2 @	—
Muriate of tin		8 @	13
Nitrate of iron, commercial		1¾@	2
	true	4½@	5
Nutgalls, blue Alleppo		14 @	15½
	Chinese	16 @	16½
Oxymuriate of antimony		4 @	6
Persian berries		17 @	20
Prussiate of potash, Am. yellow		17½@	18
	red	42 @	45
	Scotch yel.	19 @	20
	red	42 @	45
	German yel.	19 @	—
	red	42 @	45
Prussiate of soda		17½@	18
Phosphate of soda		7 @	8
Safflower		— @	—
Sago flour		3½@	3¾
Salts of tartar		6½@	7
Soluble oil		— @	6
Sumac, Sicily prime	₩ ton.	63 00 @75	00
	Virginia	50 00 @55	00
Starch, corn	₩ lb	2¼@	2⅝
	potato	4½@	4⅝
	wheat	5½@	6
Stannate of soda, 55% soluble		— @	15
Stannate of soda, 40% soluble		— @	12
	25% soluble	— @	9
	20% soluble	— @	8
Tin crystals		— @	—
Turmeric root, Alleppy		3 @	3¼
	Bengal	— @	—
	Corringa	3 @	3¼
	powdered	5 @	6
Ultramarine, imported		20 @	30
	American	5 @	16
Vanadiate, ammonium		90 @1	00
Woad, English		9 @	10
COAL TAR COLORS:			
Alizarine		19 @	21
Aniline oil		18 @	24
	salt, crystals	16 @	18
	cake	20 @	21
Bismarck brown		50 @	75
Eosine		2 40 @	3 00
Fast red		50 @	65
Fast yellow—acid		75 @1	50
Fuchsine crystals		1 25 @1	75
Hoffman's violet—3B		1 75 @2	50
Methylene blues		4 50 @6	75
Methyl violets—2R		1 50 @2	00
	2B	1 50 @2	00
	B	1 50 @2	00
Nicholson (alkali) blue—3B		2 25 @3	00
	5B	3 75 @4	00
	Red shade	2 00 @2	25
Nigrosine		1 00 @2	00
Orange A—II		40 @	65
Safranine		1 75 @2	25
Scarlet R		45 @	55
	RR	50 @	65
	RRR	70 @	75
Soluble blue—green shade		2 00 @3	50

These prices are for colors of standard purity in original packages. Reduced colors can be obtained at irregular and very much reduced figures.

CHIPPED DYEWOODS, ETC.:			
Barwood	₩ lb	17½@	2¼
Camwood		4½@	8
Fustic, com		1¾@	1½
	Cuban	1½@	1⅝
Green ebony		3½@	4
Hypernic		3½@	4¼
Logwood, Campeachy		2 @	2⅛
	Laguna	2½@	2¼
Nicwood		2 @	3
Peachwood		3½@	3¾
Quercitron		1½@	—
Redwood		2 @	3
Red sanders		— @	3
EXTRACTS:			
Archil	₩ lb	18 @	20
	concentrated	23 @	25
Black oak		23½ @	23¾
Barberry, French		26 @	30
Chestnut		3½@	4½
Chestnut oak		3½@	—
Refi'd sedimentless hemlock		4½@	6
Prime hemlock		2½@	3
Fustic, solid		10½@	—
	liquid, 51 deg	7½@	9
Indigo extract		7½@	14
Logwood, solid		@	9½
	liquid, 51 deg	6½@	6¾
	42 deg	5½@	6
Persian berries, French		24 @	26
Sumac Extract		3¾@	6¾

COMPARATIVE PRICES.

	1888.	1887.	1886.
CHEMICALS.			
Bleaching powder	2 00	1 95	1 80
Caustic soda, 70%	2 37½	2 40	2 50
Caustic soda, 60%	2 47½	2 70	2 80
Sal soda	95	1 12½	85
Soda ash, 48% carb	1 25	1 20	1 25
Soda ash, 48% caustic	1 25	1 17½	1 25
Soda ash, 48-53% N. C	1 25	1 10	1 16¼
Soda alkali, 58% B. M	1 12½	1 20	1 17½
Soda nitrate	2 17½	1 95	2 00
Brimstone	$20 00	$20 00	20 50
Cream tartar	32	34¼	34¼
Muriate of potash	1 80	1 70	1 70
Chlorate of potash	14¾	15	16⅛
Kainit	10 50	7 25	7 25
PAINTS.			
White lead in oil	7	6¼	7
Litharge	6½	5½	5½
Paris green	18¾	18	16
Orange mineral	8	7¾	7¾
Ven. red, English	1 40	1 40	1 40
Ven. red, American	1 00	1 00	1 00
Barytes	$16 00	$16 00	$18 50
Whiting, Commercial	50	45	35
DRUGS.			
Opium	$3 00	$4 40	$2 90
Morphine, domestic	2 40	3 10	1 80
Quinine, German	3¾	38	48
Quinine, domestic	43	40	50
Cinchonidia, domestic	4	8	8
Alcohol	2 16	2 03	2 14
Borax, city	8⅝	6¼	6¼
Beans, tonka (Ang)	1 30	1 35	1 55
Cubebs	1 50	1 00	75
Cuttlefish	20	19½	12½
Glycerine, American	17	19½	15½
Oil, castor, city cs.	11⅞	12	17
Oil, codliver, Nor	22 50	27 00	25 00
Quicksilver	60	53	54
Oil, bergamot	2 25	2 37½	1 90
Oil, cassia	70	60	62¾
Oil, cubebs	14 00	10 00	8 00
Oil, peppermint, tins	2 50	2 00	2 25
Oil, sassafras	55	43	55
Aloes, cape	5¾	5¾	7
Asafœtida	8½	9	11½
Gum arabic, 1st picked	84½	92½	82½
Gum arabic, sorts	52	57½	50
Camphor, bbls	24¼	22¾	23
Shellac, D C	24	19	20
Senna, Alex. Nat'l	24	29	30
Senega So	38	29	52
Golden Seal root	47	30	16
Ipecac	1 65	1 20	82½
Canary seed, Smyrna	2½	2½	2⅞
Caraway seed, Dutch	6	6¾	7½
Coriander, English	4½	5	5
Mustardseed, Cal. yel	3½	4½	5
Mustards'd, Trieste, br	5¼	7	5½
Rapeseed, English	4	4	4½
Rapeseed, German	3⅞	3¾	4
OILS.			
Linseed, domestic	54	46	43
Cottonseed, prime S. Y	47	39	40
Olive, Sicily	69	66	79
Cocoanut, Ceylon	5⅝	4⅝	5¼
Lard, prime city	82½	54	53
Menhaden, prime cde	30½	20	21½
Whale, bleached win'r	44	40	41
Sperm, bleached win'r	72	71	82
Paraffine, 25 gravity	10½	8½	8½
Black, 29 gr. 15°	8½	7½	8
Oil cake, western	23 50	23 00	27 75
Spirits turpentine	42	33½	37¼
DYESTUFFS.			
Cochineal, Tenerriff S	30	30	30
Cutch	5¾	7¾	6¾
Gambier	6⅞	5½	4⅞
Indigo, Bengal h grade	1 25	1 25	1 45
Bichromate potash	10½	10½	9⅞
Prussiate potash, yel	19	19	19
Sumac, Sicily prime	60 00	68 00	72 00
Starch, west'n corn bls	2⅞	2¾	3⅛

Gold Medal.

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Mexican Style and Cure, received the GOLD MEDAL at the Paris Exposition.

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CARBOLIC ACID, **CUDBEAR,**
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CITRIC ACID, English. **RED ARGOLS,**
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SOLE AGENTS FOR U. S.

contain a large proportion of the fruit described under (*b*) are specially to be recommended for pharmaceutical purposes.

Galbanum has again been absent from the market this season. A small parcel obtained from Russia showed an unsatisfactory quality. Nothing is heard of arrivals from Persia.

Lithia salts.—The general position of lithia salts remains much the same; the heavy supply of French lithium, in spite of its highly impure condition, weighs down the price of the article, and prevents the superior German article from getting its due. The demand for lithia salts has been weak, owing to absence of American orders. Bromide and iodide of lithia, however, have been in better request than usual.

Orange and lemon peel.—The new crop of Malaga peel has been a very good one indeed, and prices are exceptionally low. But the consumption has steadily increased of recent years, the West Indian peel being preferred by distillers because of its cheapness and greater proportion of oil.

*Cinchona Bark Statistics.

*Extract from circular issued by Messrs. Lewis & Peat, of London.

The total supply shows a falling off of 10 per cent, but as the average percentage of quinine was less than previous years, the actual reduction is greater. The continuous reduction from Ceylon since 1885-6 is very marked, and we are told will continue.

Quantity (in pounds) offered since January 1 to date in London auctions:

	Ceylon.	E. India.	Java.	Total.
1889	6,400,760	2,248,490	372,310	9,021,560
1888	8,021,040	1,478,740	306,100	9,805,880
1887	8,917,790	1,359,890	359,730	10,637,410
1886	9,457,762	702,614	301,477	10,461,853
1885	7,890,702	495,738	95,659	8,482,099

Since September, 1888, the sales of cinchona bark in London show the following results:

	Sept. 1888 to Sept. 1889. lbs.	Sept. 1887 to Sept. 1888. lbs.
Sold at 3d per lb and under	3,403,630	2,547,820
" 3d " to 6d per lb	3,519,660	4,272,710
" 6d " to 1s	1,157,500	1,928,070
" over 1s per lb	13,920	122,480
Total	8,094,750	8,869,080

There has been a large and regular consumption of both bark and quinine. The deliveries show some increase, and large lots of old quinine were taken delivery of during the year, and we think stocks now are less than the last few years. The largest makers are now under large contracts for over six months ahead, and unless importers and weak quinine holders help them, they may find it difficult to buy bark at a price to make the quinine at a profit. Published accounts of more than one large Continental factory show a loss on last year's working. The unit was nearly down to 1d. (1d. to 1¼d.), but the last large Dutch and London sales went firmly at 1½d. per unit. Even this is shown to be quite unremunerative to growers and shippers. We have had very small odd lots from Central America, but some odd lots of Cuprea were disposed of at low prices during the year.

The imports from Ceylon have been well packed, but a very large portion of inferior quality, the average percentage being 2⅛ per cent of sulphate, as against 2⅝ per cent in 1887-8. The supply from Java has not increased as much as was expected, but the average percentage has been about the same as the previous year, viz., 4 per cent. India has sent us much more, mainly from the Wynaad and Neilgherries, but a large part was poor quality, and the average percentage was barely 2 per cent of sulphate, against 2⅛ per cent in 1887-8. Most of the Darjeeling bark, about 290,000 lbs., was manufactured in India, but with very disastrous results as compared with the price quinine was procurable at in Europe.

The total exports from India are given as gross: 1888-89, 3,074,000 lbs.; 1887-88, 1,450,000 lbs.; 1886-87, 1,250,000 lbs.

Central America has sent scarcely any new lots, and most of the old stocks are held high.

Bolivia has sent again a fair supply of rich cultivated bark—but the packages were very small—averaging nearly 4½ per cent of sulphate, as in previous years.

Odd small lots came from Africa (St. Thomas) and West Indies. We hear a few trees were planted in Central Africa.

The consumption of quinine has increased, but too much has been manufactured of late years, though the center of stocks of both bark and sulphate is London, the available stocks abroad and in America being insignificant.

In the annexed statistics the stocks are given as published. Our investigations of the leading holders and importers lead us to believe the quantity of East India and Ceylon bark in London is very much below the quantity printed, for we cannot trace that importers hold within 8,000 packages of the returned quantity. We do not believe any large quantity of East India or Ceylon bark is in second hands.

	Arrivals from Ceylon and all the East Indies. Pkgs.	Sales of Ceylon in auction room Pkgs.	Highest and lowest price of the unit (per lb) Pence,	Highest and lowest German quinine sulphate (per oz.) s. d.
September, 1886-November, 1886	13,011	12,488	3½@3	1 11 @2 3
December, 1886-February, 1887	13,782	11,639	3¼@—	2 4 @2 3
March, 1887-May, 1887	17,747	10,192	3⅛@3	2 2 @2 0
June, 1887-August, 1887	15,433	9,706	2⅞@2	2 0 @1 7
September, 1887-November, 1887	12,4 0	8,302	1⅝@2	1 4 @1 10
December, 1887-February, 1888	13,110	7,969	2½@3	2 2 @1 9
March, 1888-May, 1888	16,618	7,093	2 @2⅜	1 10½@1 4
June, 1888—August, 1888	13,323	9,941	2 @2⅜	1 3⅝@1 5
September, 1888-November, 1888	14,931	10,380	2 @2¼	1 3 @1 7
December, 1888-February, 1889	16,857	7,690	1¾@2	1 2½@1 4½
March, 1889-May, 1889	18,860	7,504	1¾@1¾	0 11½@1 2½
June, 1889-August, 1889	8,496	6,918	1¼@1½	0 11½@1 2½

Weight of East India bark offered at the auctions, and mostly sold then or afterwards:

	Ceylon. Lbs.	India. Lbs.	Java. Lbs.	Total. Lbs.
Sept. 1, 1886, to Aug. 31, 1887	10,163,760	2,813,320	568,520	13,545,600
Sept. 1, 1887, to Aug. 31, 1888	11,542,520	1,758,680	524,210	13,825,410
Sept. 1, 1888, to Aug. 31, 1889	13,229,780	1,406,830	593,642	15,429,252
Total	34,937,060	6,178,830	1,686,372	42,800,262

Published stock of all cinchona bark, Ceylon, India, Java, America, etc., on September 1 of each year:

	1887	1888	1889
Total packages*	61,390	61,095	61,283
Estimated proportion of Asiatic barks, pgs	26,867	24,094	19,078
Ditto by weight at 240 lbs each, lbs	6,448,080	5,782,560	4,578,720
Ditto of American barks, lbs	34,523	37,001	42,205
Ditto by weight at 133 lbs each, lbs	4,591,559	4,921,133	5,613,265

*But we can only trace importers as holding about 16,000 packages, or say 4,000,000 lbs, and if there is such a stock as the printed returns give, a large proportion of all descriptions must be of very inferior quality, and hardly to be taken into account for the manufacture of quinine.

The English Petroleum Markets.

London—The general stock is again accumulating, and as inquiries are only of moderate extent, quotations are not supported with any great degree of steadiness, being—for American refined 5⅝ to 5⅞d per gal. on the spot, 6d to 6⅛d for October to December delivery, and Russian oil at 5⅝d to 5⅞d in similar positions. Water-white oil and petroleum spirit are without noticeable change.

According to Messrs. Mordaunt Brothers, the total quantity of petroleum oil afloat for London is 52,700 bbls, against 42,000 bbls at the same time last year; while the cargoes loading amount to only 45,500 bbls, against 86,700 bbls. in 1888.

Petroleum oil in London for the thirty-seven weeks ended September 16, with comparative stocks at that date:—

	1889. Bbls.	1888. Bbls.	1887. Bbls.
LANDINGS.			
Petroleum oil	621,336	574,543	554,034
Crude oil	15,918	12,774	8,422
Petroleum spirit	21,146	16,959	25,388
DELIVERIES.			
Petroleum oil	558,716	503,155	482,528
Crude oil	18,079	12,071	9,296
Petroleum spirit	20,852	20,566	22,506
STOCKS.			
Petroleum oil	167,522	136,746	175,132
Crude oil	3,414	4,867	4,602
Petroleum spirit	5,286	2,906	5,176

Stock account of Petroleum Oil in London, issued by the Petroleum Association from returns made by the wharfingers, for the week ending Wednesday, Sept. 18:—

	Stock, Sept. 11. bbls.	Landed. bbls.	Total. bbls.
Atlantic	17,625	....	20,024
Dudgeon's	32,428	642	35,163
Palmer's	42,747	1,179	45,887
Rowatt's	14,681	5,092	16,510
St. Leonard's	35,700	6,042	40,202
Thames Haven & Abbey Mills	25,969	376	28,068
Totals	169,150	13,331	182,481

	Delivered. bbls.	Stock, Sept. 18. bbls.
Atlantic	2,338	15,287
Dudgeon's	2,006	31,064
Palmer's	3,687	40,329
Rowatt's	1,578	18,195
St. Leonard's	3,654	38,088
Thames, Haven & Abbey Mills	2,910	23,435
Totals	16,173	166,308

Liverpool—Stocks at this port are heavy, and the demand being slow, the market is irregular, and prices ½d lower, viz, refined Pennsylvanian 6¼d to 6⅜d, and Russian 5⅞d to 6d per gal.—*London Grocer.*

FOR SALE.

A first class centrally located Drug Store in Dayton, O., will invoice about $5,000. Splendid chance. Also a number of other Drug Stores in various locations. If you contemplate buying or selling, write me,

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Rooms 1 & 2 Kuhn's Bldg, Dayton, Ohio.

JOHN J. THOMSEN,
16 & 18 W. German, & 23 W. Baltimore St., BALTIMORE, MD.,
IMPORTER AND EXPORTER OF
DRUGS,
AMERICAN INDIGENOUS
OILS, ROOTS, BARKS, HERBS,
A SPECIALTY.

Established 1836.
CROTON LABORATORY,
OFFICE, 26 CEDAR ST., N. Y.
J. B. Hendrickson,
IMPORTER AND REFINER OF
Crude Saltpetre and Nitrate of Soda.
Best qualities always on hand at lowest cash price.

VICTOR REMEDIES CO.,
MANUFACTURERS OF
Victor Liver Syrup, Victor Pain Balm,
" Infant's Relief, " Lung Syrup,
" Liniment, " Liver Pills,
" H.&C. Powders, " Poultry Powder,
Correspondence solicited with the Jobbing and Export Trade.
FREDERICK, MD., U.S.A.

McGOWAN'S EXPECTORANT.
(A 25c ARTICLE.)
After the receipe of a Cough Cure that sells at $1.00 and has the largest sale in the U. S., put up in 3 oz. panel bottles. There is money in this, both for jobber and retailer.
Correspondence solicited from jobbers and export agents. **S. H. McGOWAN, Lebanon, Pa.**
One Agent wanted in every town.

F. E. McALLISTER,
Seed Merchant and Importer,
No. 22 Dey St., New York.
Canary, Rape and Hemp Seed, Mocking Bird Food, Mixed Bird Seed in cases, Bird Gravel, &c.

New Goods. Special Quotations.

25 bales New Arnica Flowers,
25 " Sweet Orange Peel, (Malaga,)
100 bags Juniper Berries,
20 bales German Fennel Seed,
10 " Red Rose Leaves,
50 cases Extra Prime Gum Asafoetida,
25 " Prime " "
25 cases Ordinary Gum Asafoetida,
10 cases Soc. Aloes, (in monkey skins)
5 casks True Barb Aloes, (in gourds)
25 bales Italian Aniseed,
20 cases Gum Guaiac,
20 " Powd. Sugar Milk.

Powdered, Ground and Crushed Drugs.
R. HILLIER'S SON COMPANY,
IMPORTERS and DRUG MILLERS,
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A. H. WIRZ,
MANUFACTURER OF
All Kinds of Bottle Stoppers,
for Liquids and Powders,
Our New Style Caps need not be removed
Collapsible Tubes,
For Colors, Ointments, Pastes, Varnishes, Lithographic and Printing Inks, and Perfumes.
Any Sizes.

Pill Machines,
For Compressed or Soft Pills, of any shape, for hand or power.

Suppository and Cosmetic Moulds,
Metal Syringes,
Collapsing Drinking Cups,
And a general line of Metal Goods for the Drug Trade.

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FINEST GUARANTEED GENUINE ESSENTIAL OILS:
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Shipments of this old established and responsible house, may be relied upon to prove as represented.
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ALL GRADES.

CALIFORNIA MEDICINAL HERBS AND BARKS as follows:
Cascara Sagrada, Yerba Santa, Grindelia Robusta Damiana.
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NEWCASTLE ON TYNE.

Bleaching Powder, **Carb Soda Crystals,**
Caustic Soda, **Soda Ash, all tests,**
Sal Soda, **Bi-Carb Soda.**

Edward Hill's Son & Co., Agents,
25 & 27 CEDAR STREET, NEW YORK.

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Commission Merchants,
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Soda Ash, Sal Soda, Caustic Soda, Bleaching Powders.

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Soda Ash, Caustic Soda, Sal Soda, Bleaching Powder,
Salt Cake, Oxide Manganese, Chloride Manganese,
Potash Alum, Sulphate Morphia,
Carbonate Potash, Hyposulphite of Soda.

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Caustic Soda,
Bleaching Powder,
Soda Ash,
Carbonated Crystals,
Sal Soda,
Bicarb Soda,

Caustic Potash,
Carbonate Potash,
Chlorate Potash,

ARSENIC.

Cocoanut Oil, Ceylon.
Cocoanut Oil, Cochin.
Palm Oil,
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Cookson's Ven. Red,
Orange Mineral,

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ESSENTIAL OILS,

LEMON, BERGAMOT AND ORANGE, GUARANTEED PURE.

PURE ALKALI.

Manufactured by the Ammonia Process.

This Alkali contains 58 per cent. of Alkali or nearly 99 per cent. of Carbonate of Soda. It is the most economical form of Soda for Manufacturers of Soap, Glass, Paper, Wood Pulp and Colors, and for Printers and Bleachers.

CRESCENT BRAND

MANUFACTURED BY

BRUNNER, MOND & CO.,

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NORTHWICH, ENGLAND.

AND

SOLVAY PROCESS CO.,

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CRESCENT BRAND

THE SOLVAY PROCESS CO. will make by this same process an Alkali adapted for Window Glass Makers testing 48 per cent.

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WING & EVANS have appointed as exclusive Sale agents,
Messrs. LINDER & MEYER, BOSTON, for New England States who are prepared to contract for future delivery.

CHEMICAL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Oct. 1, 1889.

For the closing week of the month business in chemicals has been very satisfactory, but the position, so far as prices are concerned, shows little actual change. In the general list an easier feeling is noted, in connection with brimstone, while nitrate of soda is doing a little better. The proposed combination of lime acetate makers, before referred to by the REPORTER, may be consummated during the coming week. Among the heavy goods soda ash is firm, while caustic soda is higher and still tending upward. Our Liverpool correspondents, Messrs. J. P. Brunner & Co., write us, under date of Sept. 18th: "Since our last there is little to report in the way of change. Soda ash is dull. We quote: Caustic ash, 48%, 15-16@1 1-16d; high test, 31-32@1 1-16d; carb ash, 48%, 31-32@1 1-16d; high test, 31-32@1 1-16d. Soda crystals are firm at the advance and held at £2 12s 6d. Caustic soda, in some respects, is quieter, there being some parcels in second hands, which are offered for sale; 60% is scarce at £6 2s 6d@6 5s. Seventy per cent is held at £7 2s 6d@7 5s; sales to the end of this year at the latter price. Seventy-four per cent is also scarce and in good demand at £8 prompt and forward. For 76%, £8 15s@9 is quoted. Bleaching powder is dull, the nominal price being £6 17s 6 :@7. Chlorate of potash is more inquired for at 4⅜@4½d. Bicarb soda has advanced, and £4 15s is now lowest, for one cwt kegs, according to brand and quantity, with usual allowances for larger packages. In bleaching powder, owing to the failure of the attempted combination named in our last, there have been sales at a smart drop in price, £5 10s having been accepted at maker's works for 1890. No transactions in hardwood casks are reported, the nominal price being about £6 10s f o b, Liverpool. In caustic soda sales of 70% have been made at £7 to £7 5s for all 1890, but with the serious advance in the price of fuel, most makers prefer not to quote at present under £7 10s for 70%. The position of the old Le Blanc soda manufacture looks very serious for next year."

Heavy Chemicals.

Carbonated soda ash remains firm on the spot under a good consuming demand for 48%, but business is principally in small lots, for the supply of current requirements. We repeat our quotations of 1 22½@1 25c as to quantity, for goods to arrive, and 1 27½@1 32½c for spot stock, as to size of order.

Caustic soda ash 48% is without fresh feature of interest. Buyers seem to have satisfied their wants and we have heard of little business within the week. The nominal quotations are 1 22½@1 27½c as to quantity, but less has been accepted in some instances.

Alkali continues to sell quite freely for spot and forward delivery and with limited supplies prices are firmly held. We quote 48% at 1 22½@1 25c and 58% at 1 15@1 17½ according to size of order.

Caustic soda is very firm, and the tendency of prices is upward in sympathy with advices from the producing centers. Reports from Liverpool state that the recent advance of 2s per ton in the price of coal is equivalent to an increase of an eighth of a cent per lb in the actual cost of manufacture. Cables quote 74% at £8 2s 6d, though a bid of £8 might still be accepted. In this market the inside price for either 70% or 74% is 2 32½c, and that only for round lots, ordinary quantities being held at 2 35@2 37½c. The advancing tendency of the market causes buyers to show some anxiety to cover their wants and since we last wrote a fair business has been done though not in large quantities. Supplies here are light and this fact helps to increase the feeling of firmness. Sixty per cent has been in considerable demand but there is little obtainable and holders are now asking 2 52½@2 57½c as to quantity.

Sal soda is firm under a moderate demand. English is quotable at 97½@1c on the spot and 92½@95c to arrive, according to the quantity wanted.

Bleaching powder is a shade firmer on the spot, as there is now nothing pressing on the market. The inside quotation for large lots now is 1 72½c, while up to 1 80c is asked for smaller quantities. To arrive or for shipment 1 70c might buy. According to recent advices from the other side, there is no hope of a revival of the Bleach Association. The manufacturers seem anxious to sell, and are accepting low prices. We hear that one maker has sold 3,000 tons for deliveries extending over 1890, at £5 15s down to £5 10s, at works, for soft wood, which is about equal to £6 5s for hard wood packages. It is also reported that two Newcastle manufacturers have sold about all they can produce for 1890 at equally low figures. Under these circumstances, it would appear to be impossible to renew the agreement to restrict the production next year. It is rumored that offers to sell at 1 60c for delivery all over 1890 have been made in this market but have met with no response.

Acids.

The one item of interest in the market for acids has continued to be the progress of the association of makers. Another meeting will be held to-morrow (Wednesday), at the usual time and place, and it is said the question of permanent organization will again come up, but that prices will in all probability not be considered, except perhaps those for nitric acid, which are looked upon as disproportionate when compared with those for aqua fortis; otherwise the prices previously agreed on are looked upon as satisfactory, with the market in its present condition. From our remarks in a previous issue, it seems to have been suspected by some that all was not peace and harmony in the association, but this was not intended. It is true that some do not favor a permanent organization as generally constructed, but all seem to be of one mind when it comes to a question of prices, providing it is not intended to "boost" them too high. All are apparently opposed to a trust.

Acetic acid has sold to a fair extent, but no features are apparent and prices are unchanged.

Muriatic acid has been in fair jobbing request, but there has been no evidence of animation, and prices have ruled steady at the rates agreed upon by the makers.

Nitric acid has been quietly steady, the demand during the interval having been rather dull and uninteresting. The association rates continue to prevail.

Oxalic acid has sold in fair jobbing quantities, but there have been absolutely no features of interest. Prices have been unchanged.

Sulphuric acid has been in fair demand, at the association prices. Dealers regard the month's business as fairly satisfactory, and find no complaint.

Tartaric acid has been in moderate jobbing re quest, with prices rather easy, and the market bare of items of interest.

Miscellaneous.

Acetate of Lime—The contemplated formation of a combination occupies the attention of manufacturers and dealers at the moment, and prices are quoted with a firm tone. The business doing has not been out of the ordinary. Brown is ruling unchanged, as is also gray.

Blue vitriol has been quiet, and is quoted at 5¼c for large parcels. Buyers have taken but little interest in the article, however, and the market has been without feature.

Brimstone. Cables were received from the primary markets on Saturday, to the effect that the market had again declined, best unmixed seconds being quoted as low as $18 62½ and thirds at $17 75. These figures have had no effect on buyers, however, and have not induced trading to any extent, consequently the business throughout the week has been small and unimportant.

N. MATHIESON & CO.,

58%

PURE ALKALI

Manufactured by the Ammonia Process.

TRADE MARK.

Widnes, Lancashire, England.

The superiority of this Alkali is evident from the following analysis made by the well known English chemists Huson Bros:

*Carbonate of Soda,	99.41	per cent.
Sulphate of Soda,	traces	
Chloride of Sodium,	0.15	"
Carbonate of Lime,	0.17	"
Magnesia,	traces	
Peroxide of Iron,	0.06	"
Alumina,	0.03	"
Silica,	0.08	"
Moisture,	0.10	"
	100.00	

* Carbonate of Soda 99.41 per cent. — 59 per cent. Alkali Commercial Test

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Oil Vitriol, Muriatic Acid.
Sulphuric Acid, 98 per cent.
Alum, Sulphate of Soda.

Our Refined Oil Vitriol is the purest Commercial Acid made in the World.

LAUREL HILL CHEMICAL WORKS, Laurel Hill, L. I.

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Oil Vitriol, Muriatic Acid.

ACETIC ACID,

Copperas, Sulphate Soda

NITRIC ACID, AQUA FORTIS, MURIATE TIN, &c.

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Mixed Acids for Nitro-Glycerine Makers.

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LUMP AND GROUND.

IRISH HILL BRAND. Highest in Alumina, and Lowest in Iron produced. Best article wherefrom to Manufacture Alum, Sulphat of Alumina, Alum Cake, &c.

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Alkali Manufacturers, WIDNES.

In addition to their well known Chemicals, offer their more recent specialty and already highly popular form of Soda

CRYSTAL CARBONATE

The Purest, Cheapest and most Soluble form of Crystallized Soda.

1 lb. Equal to 2 1-2 lbs. of Soda Crystals.

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CHLORAL HYDRATE,

Salicylic Acid, Carbolic Acid, Pyrogallic Acid, Glycerine, Russian Isinglass, Paraldehyd, Etc., Etc.

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—EPSOM SALT, SAL SODA,—

IODIDE POTASSIUM. IODINE RESUBL., SULPHATE ZINC, CHEM. PURE ACIDS,

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BLEACHING POWDER.	CAUSTIC POTASH.	BORAX.
SODA ASH.	CHLORATE OF POTASH	CASTOR OIL.
CAUSTIC SODA.	CARBONATE OF POTASH	CAMPHOR.
SAL SODA.	OXALIC ACID.	OIL LEMON.
NITRATE OF SODA.	BRIMSTONE.	OIL BERGAMOT.

Finest Quality Philadelphia Quercitron Bark for Export.

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HIGH TEST CAUSTIC SODA,

HIGH TEST BLEACHING POWDER.

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Chemical Works, List, near Hanover, Germany,

Manufacturer of Chemicals,

For Pharmaceutical and Technical Purposes.

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Ammonia Muriate, Barium Per Oxy Barium Nitrate, Benzoic Acid, Carbolic Acid, Strontia Nitrate.

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Soda Ash, Sal Soda, Venetian Red,

Chance's Bicarb Soda, Indigo,

Pattinson's Carbonate and Calcined Magnesia.

Carbonate in 2 oz., 4 oz. small square & powdered. Calcined ¼ & 1 lb. bottles and 1 lb tins

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Turkey and Indian Reds, Purple Browns, Colcothar, Metallic Oxides Bright Red and Scarlet Oxides.

DOUBLE REFINED GRANULATED SALTPETRE NIAGARA LABORATORY JERSEY CITY B.&R. OFFICE 163 FRONT ST. NEW YORK

BATTELLE & RENWICK,

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MANUFACTURERS OF

Refined Saltpetre,

Crystals, Granulated and Powdered.

LARKIN & SCHEFFER.

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OFFER THE TRADE

CHEMICALS,

TECHNICAL, PHARMACEUTICAL AND SCIENTIFIC

OUR GOODS ARE MADE IN STRICT CONFORMITY TO THE U. S. PHARMACOPŒIA.

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NEWCASTLE CHEMICAL WORKS CO. LIMITED.

Successors to C. ALLHUSEN & SONS.

Newcastle on Tyne, England,

MANUFACTURERS OF

Chemically pure Caustic Soda 77 of Alkali.

Equal to 99.35 Hydrate of Sodium.

The purest article manufactured, and much more economical to the consumer than lower test.
Particularly adapted to use of Oil Refiners, Soap and Paper Makers.

—ALSO—

Bleaching Powder and Sal Soda.

WING & EVANS,

54 WILLIAM STREET. NEW YORK.

AGENTS FOR THE UNITED STATES.

Nitrate of Soda.—The market showed unmistakable signs of increasing strength and dealers do not manifest that weakness in the giving of prices that was so marked a short time ago. While sales have been made at 1 87½c this figure is considered hardly a fair quotation at the present time,and dealars generally conconcede 1 90c a better price, and one more likely to represent the market. There has been a considerable quantity of stock taken and dealers estimate that some 20,000 bags have changed hands during the past two weeks.

Cream Tartar,—The market has cotinued on the course which has been so charactaristic of it for the past two months, while there has been no open announcements of lower prices, yet it is asserted that, owing to the manner in which the article is being offered in some quarters, concessions must be granted. The demand has been fair,though not excessive, and the future of the market is merely a matter of conjecture.

Ammonias, Potashes and Fertilizing Chemicals.

The general market for fertilizing chemicals has been without special interest during the week under review. The trading has not been important, and no features can be noted. The only change in quotations has been for western blood, which has been reduced to $2 25@2 27½.

Messrs. Couper, Millar & Co., under date of London, September 17, 1889, say:

"The feature of the month in London is the great dock strike, which has more or less paralysed industries on spot, in fact the largest of the fertilizer works shut its doors on its operatives, preferring rather to close than be coerced. In regard to the market for mineral phosphates in the United Kingdom, they say; Canadian phosphate shipments have again been delayed through the freight difficulty, for only as ballast can this rock come forward. Contracts have however been so far implemented, but the season is rapidly drawing to a close, and large quantities have still to be shipped. We hear of no late sales of 80 %, but 70 % has been done lately at 10¼d, with 1-5th rise. South Carolina, in large steamer cargos, commands 10¼d. per unit, but the United States market is active, and more can be realized there than here, which accounts for short supplies. Somme phosphates are in limited supply, 70 % and over being fully sold, while but little of the lower grades are available. The unprecedented demand in France has astonished everyone, and it is hard to say how this is to be met when the Somme supply is exhausted. Belgian continues in request, but the higher tests have all been absorbed in France, etc., and there is only 40 to 45 and 45 to 50 % available."

Muriate of Potash—Some 300 tons have arrived during the week, all of which have gone into consumption. We are given new sales to the extent of 50 tons, and re-sales of 100 tons at quotations.

Double manure salts have sold fairly well,but no activity can be noted, and the market is without special interest. High grade sulphate of potash has been unchanged, and ruling steady, with a moderate demand reported.

Kainit—Beyond the sale of a cargo, consisting of 500 tons November arrival, no trading has been reported, and the market has been rather quiet and featureless. Previous quotations are ruling.

Philadelphia Chemical Market.

PHILADELPHIA, Sept. 30, 1889.

There has been but little of interest transpiring in the English chemical market during the week now closing. Figures have undergone no change of any moment. Stocks are not heavy and in some cases are not equal to the demand. The arrivals have only been sufficient to supply contracts.

Carbonated soda ash Liverpool 48% is in about the same position as last report, trade is limited and stocks light. On spot holders are naming 1 32½@1 42½ and to arrive, and for shipments 1 27½@1 35 will buy as to brand and quantity and holders firm in their views. In 58% there is but little doing and figures of previous reports hold good.

Caustic soda ash, 48% is dull, most buyers only take sufficient quantity to supply their immediate wants; spot goods are held at 1 35@ 1 42½c, and to arrive, 1 27½@1 35c is named, and same figures apply to shipments.

Caustic soda continues in seller's favor, and buyers are only taking in limited quantities' hoping for a reaction in their favor. Sixty per cent, on spot, is held at 2 62½@2 70c, and to arrive and for shipments, 2 60@2 70c. Seventy per cent is meeting with a limited jobbing demand, and is held at 2 42½@2 50c on spot and for shipments, 2 30@2 40c is named. Seventy-four per cent is scarce, and 2 37½@2 45c quoted for shipments and on spot.

Sal soda continues firm at 1 10@1 30c on spot owing to the scarcity of supplies. To arrive 1 02½@1 07½ will buy and for shipment 95c@$1 are the ruling quotations.

Refined alkali 36% in a jobbing way can be

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China, Pipe, Slip, Plastic Ball and other Clays.
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For removing clinker from furnaces, &c

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MANUFACTURERS OF
Oil of Vitriol, Muriatic Acid,
Nitric Acid, Aqua Fortis,
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Tin Crystals, Stannate of Soda.
Silicate of Soda, etc.
Mixed Acid for Nitro Glycerine a Specialty.
17 Cedar Street, New York.
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Note on Lemon Juice.*

In the British Pharmacopœia of 1867 lemon juice is described as having sp. gr. 1·039 and containing 32·5 grains of citric acid in 1 fluid ounce. In the Pharmacopœia of 1885 the specific gravity is given as from 1·035 to 1·045, and the quantity of citric acid as from 36 to 46 grains per fluid ounce. The variability of the juice is here very properly allowed for, but, as far as my experience goes, the standard for citric acid is much too high. From 30 to 36 grains per ounce citric acid would more correctly represent the amount present in lemon juice as commonly obtained from the finest imported fruit during the winter months, and from 20 to 30 grains per ounce when the juice is pressed in summer.

On looking up the literature of the subject, I find very conflicting statements. For example: Bentley and Redwood in their "Materia Medica" give the citricity of lemon juice as 34 grains per fluid ounce, while Mr. W. W. Stoddart, in a paper which he read at the Norwich Pharmaceutical Conference in 1885 gives as the result of the examination of eight lemons from 39 to 46 grains of citric acid, and he concludes that, should there be less than this, the lemons must have been kept too long or gathered too late in the season. Fluckiger and Hanbury in the "Pharmacographia" consider 40 to 46 grains per ounce the normal quantity of citric acid, while Warington, whose experience on this subject is very extensive, states that English pressed juice contains from 11 to 13 ounces to the gallon, that is from 30 to 35·5 grains per ounce.

Under these circumstances, being asked to contribute a paper to the conference, I have thought that the results of analyses performed in the laboratory of my firm upon juice obtained by us from fruit of our own importing might perhaps be acceptable. There was no idea of publishing these results until a few days ago. Lemon juice is with us only a by-product, and it is only occasionally that the results of analyses have been recorded, and still less often that the yield of juice has been noted. The lemons are not pressed to the full extent of the hydraulic press, as time is considered of more value than a small additional yield of juice. In one instance I find that 15,000 lemons yielded us 104 gallons of juice; each carboy of juice was tested. A case of 400 lemons pressed a few days ago yielded us 4¼ gallons of juice—a very much larger proportion; but the juice was of very inferior quality. The results are given below.

The amount of acid present is ascertained by titrating 1 fluid ounce, measured with a pipette of known accuracy, with normal caustic soda, using phenolphthalein as an indicator. The number of cubic centimeters of normal soda solution used, multiplied by 1·078, gives the weight of crystallized citric acid in grains. But it must be remembered that phenolphthalein indicates an alkaline state of the solution, and in working with these quantities the neutral point should be reckoned as 0·1 c.c. less than that shown by the burette. With juice of known origin, where sophistication is out of the question, this method leaves nothing to be desired. Very careful experiments have shown that results obtained by titration are quite as accurate as those obtained by previous precipitation as calcium salt; in neither case is the absolute amount of citric acid ascertained, but simple titration tells truly the total acidity, and for our purpose we may consider this as due entirely to citric acid. The following table shows the results obtained in those instances in which notes were kept during the past season.

Month.	Lemons. Number of cases.	Average per case.	Citricity. Per cent.
November..	38	416	31·3 33·0 33·5 34·3 30·2 30·8 34·6 35·6 32·9
December.....	25	425	29·2
	3	480	33·5
	2	486	32·9
	1	410	33·6
	1	415	32·6
	1	420	30·3
	1	415	34·0
May.....	2	350	29 2
August	1	405	22·6

*Read before the British Pharmaceutical Conference by T. Howell Williams, F. C. S.

Extract of Fustic.

This extract is mostly adulterated with dextrine, molasses, sulphate of zinc, glycerine, starch-sugar, alum, extract of turmeric, aniline dyestuffs and nitroalizarine (Alizarine orange.

The determination of sulphate of zinc and of alum is pretty easy. The presence in the ash of alumina shows the adulteration with alum. The determination of sulphate of zinc, especially of small quantities, is more difficult and the ash of the extract brought to a white heat will often cause errors. The presence of larger quantities of this salt in extracts of fustic manifests itself by the turbidity of the extract solution.

Pure extract of fustic dissolves in the proportion of 1 to 300 in water (distilled and well water), with a light yellow color. For the detection of zinc, the extract dried at 110° C. is lightly charred, then finely powdered and boiled out with nitric acid. In the decoction, zinc is easily determined in the usual way. If the extract was adulterated with alum, the latter can also be determined in the nitric acid solution.

The determination of extract of turmeric is based upon the property of this extract to dye wool directly without a mordant, which property the coloring matters of fustic do not possess. The wool fiber has not the property of being directly divided by the coloring matters of fustic, but the animal fat adhering to it acts as a feeble mordant for these coloring matters. The latter must, therefore, be very carefully removed from the fiber before a tifsue is used for a test of this kind. The most suitable material for such tests is well-scoured white woollen cashmere.

One grm. of the extract under examination is dissolved in 50 ccm. hot water, diluted to ½ liter with cold distilled water, and poured into a porcelain dish. The cashmere is then entered, the liquid is brought to the boil in a quarter of an hour under constant stirring, and after boiling five minutes the piece is taken out and well washed. If then its color is pure white, no trace of turmeric was contained in the extract under examination. If the color of the tissue is yellow, then adulteration with turmeric or aniline dyestuffs has taken place. For a closer examination the cashmere is extracted with alcohol, and the latter evaporated to a few ccm. A part of it is used for testing for aniline dyestuffs possibly present; if there are none, only the adulteration with turmeric is possible. To be sure, however, in cases of adulteration with alum, in which case fustic would dye directly the following tests are made:

Reagent.	Turmeric.	Fustic.
Stannous chloride.	Reddish precipitate.	Light yellow precipitate.
Acetate of lead ...	Chestnut brown.	Reddish yellow.
Ferric sulphate....	No precipitate, solution colored brown.	Black precipitate; solution colored brown, afterwards turning olive green.
Caustic alkalis.....	Brown coloration.	Dark orange coloration, but no precipitate.
Mineral acids.....	Red coloration; no precipitate; on diluting the coloration disappears, and the dyestuff separates out in yellow flakes.	A light yellow precipitate is formed.

More difficult than the determination of turmeric is the ascertaining of an adulteration with quercitron. There is absolutely no literature on this subject, and the author has not yet succeeded in discovering an accurate method, and resorts to dye trials.

Wool is not directly dyed by extract of quercitron, and alum is but a feeble mordant for quercitron upon wool. Quercitron produces with alum only a feeble coloring, whilst fustic gives a deep yellow color. Tin, especially stannous chloride in presence of an acid, such as tartaric, oxalic, or hydrochloric acid, dyes in combination with quercitron a deep orange upon wool, while fustic gives delicate shades.

The difference in the behavior of quercitron and fustic extracts towards alum and tin salt affords us some points for the possible detection of quercitron in extract of fustic. A piece of white woolen cashmere, 10 cm. by 20 cm. dyed in a mixture of 0·5 grm. of extract, 0·2 grm. of alum, 0·5 grm. of stannous chloride, 0·5 grm. of oxalic acid in 1 liter of water, if compared with a pattern dyed with an extract adulterated with quercitron will show different results, which difference manifests itself by the greater intensity of color of the adulterated extract. If now a swatch of the same size be dyed in the extracts under comparison, but with alum mordant alone, the adulterated

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extract will give weaker colorings than the pure extract of fustic. With some practice in comparative dye trials even the percentage can be determined with approximate certainty. Although this method does not yield quantitative results, it is sufficiently accurate for many cases occurring in practice.

A determination of quercitron as to its containing tannic acid and of different properties of the extract is not practicable, as there are two coloring matters contained in extract of fustic, one of which, the morin, as the investigations of Hlasiwetz and Pfaundler, &c., prove, behaves analogous to quercitron. Hlasiwetz, states, and proves, that quercetin contains the elements of morin and quercetic acid, and thereby explains the analogy of the behavior of morin and quercetin:

$$\underset{\text{Quercetin.}}{C_{27}H_{18}O_{12}} = \underset{\text{Morin.}}{C_{12}H_8O_5} + \underset{\text{Quercetic acid.}}{C_{15}H_{10}O_7}$$

The other coloring matter contained is extract of fustic, moritannic acid, or maclurin, has the decided character of a tannic acid. With the extracts of fustic, therefore, all reactions peculiar to tannic acids can be obtained.

The determination of saccharine admixtures, as molasses, syrup, dextrine, is carried out in an analogous manner as stated, when dealing with logwood extracts, that is, by extracting the products with absolute alcohol, and determining the sugar or dextrine in the residue.

As with logwoood extracts, the practice of excessive adulteration is carried on with extracts of fustic. Prime qualities are mostly already mixtures containing for every 100 parts of extract of fustic 15 parts of admixture (15 per cent.). With second qualities 30 per cent is reached. As an illustration, the following method of manufacture will serve to show what takes place in practice:

For the production of fustic extract pure fustic is not employed, but a mixture of about 95 per cent of fustic and 5 per cent of quercitron bark. Since the best fustic, as will shortly be seen, yields at the most only 15 per cent of solid extract, while quercitron bark often gives 30 per cent of solid extract, it follows that most extracts of fustic which are offered in the market as pure, contain already from the start 10 per cent of admixture.—*Jour. of Soc. Chem. Ind.*

Facilitating Chemical Reaction.

It is a well-known principle in chemistry that many substances will, when first evolved or disengaged from previous chemical combinations, readily unite with other substances to which they are presented, and toward which they would be under other conditions chemically inert, A convenient nomenclature has applied the term "nascent state" to describe this condition. Thus, for instance, hydrogen will when in this state unite with nitrogen to form ammonia; but, if the nascent condition has passed, no length of exposure of the gases to one another, and so far as heretofore developed no method of manipulation or treatment and no form of apparatus which has been devised will cause them to combine in sufficient quantity for the commercial production of ammonia gas. In theory this fact may be explained by considering that the molecules of the gases have their structure divided or altered when enteriag into combinations. Such division or alteration of the molecules may persist momentarily after the disengagement of the gas from combination, but by lapse of time and a continuing state of freedom the molecules may assume an individuality the tendency to maintain which is stronger than the inducement to enter into other combinations. While, therefore, in the nascent state which corresponds to the period before such individuality has been established, the molecules may be open to readily form fresh combinations, they cease to be so by lapse of time and by what may be termed the "settling" of the substance into a definite and fixed condition.

It has been ascertained that the condition of a given substance which corresponds to the nascent state may be again brought about after the definite individuality of the substance has been established, and this discovery has been embodied in a process whereby the substances with which it deals are caused to retrograde, as it were, into a condition from which they have emerged, and in which they are open to form chemical combinations that would otherwise be beyond their power. It is believed that the means by which the process acts is the actual mechanical disintegration of the whole or a portion of the several molecules, since this theory serves best to explain the behavior which is exhibited by various bodies when treated as hereinafter set forth.

Without attempting to enumerate all of the various applications to which this discovery is adapted, a convenient classification (with types of the several classes) is given under, and in thus classifying them it is to be understood that the word "combination" means chemical union, and, further, that the bodies mentioned are under previously known conditions chemically inert toward one another, or that they are, comparatively speaking, difficult to combine. In the former case the process is new as a means of effecting the given result, and in the latter case it is an improved means for carrying on existing processes.

The classes are as follows: First, the combination of two gases—as, for example, hydrogen and nitrogen—for the commercial manufacture of ammonia; second, the combination resulting from the use of a gas and one or more solid substances—as, for example, chloride of sodium and atmospheric air—for the production of chlorine gas; third, the combination resulting from the use of a vapor and one or more solid substances—as, for example, chloride of sodium and steam—for the production of hydrochloric acid; fourth, the combination of two or more liquids—as for example, different products of petroleum—to form intermediate grades of such products, or the production of fatty acids and glycerine by the action of water upon neutral fats; fifth, the combination resulting from the use of a salt in solution and a substance in suspension—as, for example, a solution of sulphate of soda and milk or cream of caustic lime—to form caustic soda; sixth, the combination of a gas in solution and a solid—as, for example, the treatment of wood by means of sulphurous acid in solution in water—to disintegrate, purify and bleach the material for paper manufacture; seventh, the combination resulting from the use of a gas, a solid and a liquid—as for example, the action of finely divided carbon or coal upon the gas already produced from coal, with or without the use of a liquid hydrocarbon—for the production of illuminating gas; eighth, the combination resulting from the use of a solid and a gas—as, for example, oxide of iron and atmospheric air—for the production of a higher oxide of iron or the converse of this process, viz., the action of carbon, hydrogen or other reducing agents upon metallic oxides, such as alumina, producing aluminium by the gradual reduction of the oxide.

The operation of the process is as follows: Two opposing jets of the substances to be combined are forced together in a proper receptacle under pressure, and when the substances themselves are not capable of producing by merely their joint impact and attrition such a disintegration as is essential to the success of the process, there is commingled with them in such form as to be freely carried into the jets finely divided solid material of such charcter as to take no part in the chemical reaction, but acting mechanically to produce impact and attrition. The use of heat, or of cold, or of changes of temperature is said to be a valuable adjunct to the process.—*Paper Trade Journal.*

Latest Report on the Nitrate Industry of Chili.

FURTHER NOTES BY BRITISH CONSUL NEWMAN AT VALPARAISO,

In my former report on the nitrates of Chili I said that the trade therein was one of vicissitudes. That can be seen by any nitrate broker's record of prices current for a series of years, especially when taken in combination with a history of the fluctuations in freight and exchange during the same period. Then there have been the effects on the trade of economies gradually introduced in the preparation of the article, and the interferance of the Peruvian Government, which at one time expropriated the grounds and attempted to make a national business of the production and sale in Europe. Earthquakes and tidal waves have twice in the last twenty years caused great destruction of life and property in the ports, and, lastly, the Chilian-Peruvian war left its mark. After the conclusion of the war producers had a good time for some years, and this induced increased production till prices began to fall. By 1884 matters were so bad as to cause very serious anxiety among the banks and merchants who had dealings in the nitrate districts. By-and-by it became clear that a limitation of production was an absolute necessity, and this was carried out, though with many difficulties and uncertainties, which for a time robbed it of part of its effect in steadying prices. The principle on which the limitation was agreed on was a percentage of the possible output of each oficina—consequently each oficina claimed as large an output as possible. The producers, who were strong enough financially to stand a period of losing prices, had to be persuaded to come into the combination by being allowed to produce more thah their fair share, and when better times came they made large profits. Naturally this brought in a fresh set of producers, and it is questionable if the combination could have been longer maintained. Fortunately at this junction consumption expanded wonderfully in Europe, and all the producers made money working as hard as they could. It is, however, to be kept in view that there are two factors, besides the wishes and intentions of producers, which have of late years tended to limit production naturally. In the first place the high price of copper gave full employment to a large number of laborers, and in the second the want of shipping facilities and the smallness of the shipping ports always check supplies. The first difficulty has been relieved by the breaking down of the copper syndicate, which has released many miners, and labor in the nitrate districts is now plentiful and cheaper than for a long time previous. The second difficulty will always exist, but matters can and doubtless will be improved.

Note of the yearly production from 1884 to 1888 inclusive:

	Production.	Average price for cargoes arrived March 31.		Average distant cargoes.		Freights on March 31.	
	Tons.	s.	d.	s.	d.	s.	d.
1884	550,000	9	3	9	6	32	6
1885	350,000	9	6	9	9	37	6
1886	450,000	11	1½	10	0	25	0
1887	700,000	10	3	8	3	32	6
1888	800,000	10	3	9	0	38	6

Last spring the demand for the Continent was enormous, although the prices paid were comparatively high. This spring, with lower prices, consumption is reported to be unsatisfactory. More nitrate was used last year in raising beetroot for sugar than ever before, but the beetroot crop was a short one and sugar has risen immensely. There is no doubt that nitrate is an excellent fertilizer, and that the quantity of nitrate applied has had nothing to do with the shortness of the crop of beetroot; and the fact that agricultural demand increased in spite of high prices, and that the increased rise of fertilizers in a particular year did not result in a larger crop of beetroot in that year, must be borne in mind, in order to point out how risky it is to expect a regular sequence of events in business calculations. The *St. James Gazette* considers that the real point of President Balmaceda's speech was lost sight of. Perhaps so: but it is not thought so here. The president's speech pointed to jealousy of the foreign element in the nitrate industry. So much was this the case that, in the Chilian press, the Government was urged to give effect to the national desire for a share in the gains by selling some of the State nitrate fields to a Chilian syndicate at a nominal figure, so as in this way to realize the wish expressed by the President that Chilians should directly profit by the riches contained in their own soil. There is no immediate liklihood that the duties will be raised. At present they are very high, and as long as exports keep on anything like the existing scale, or over, the revenue produced is ample; but if over production induced unprofitable business, the producers might again be inclined to resort to restriction, in which case it is not unlikely that the duty might be raised. This is supposed to be the general opinion of most merchants here. The Chilian Government is going in for very heavy expenditure—expenditure which would be entirely unjustifiable were it not that revenue derived directly and indirectly from the nitrate districts, and any considerable decrease in this revenue would force the Government to raise the duty. A decrease of production means besides a direct decrease in duty recovered on shipments, a smaller amount of wages earned, and a reduced consumption of agricultural products for which nitrate districts are the best markets; consequently the imports, which pay on an average 45 per cent. duty, would be reduced also, and the candle thus be burned at both ends. With all respect for the opinions of the highest financial newspapers, and having every confidence in their trustworthiness, it may be suspected that this nitrate industry is such a many-sided business that it is unusually difficult for them to get a proper idea of it. In one London paper it is said that the facts cited by me with respect to the sellers going out on the top of the tide are wrong; that the high prices were in 1881-82, when the total consumption on the Continent did not exceed 240,000 tons as against 527,000 tons last year. The writer of the article has not properly understood. He refers to the high price per cwt. of nitrate: the report referred to that of nitrate grounds. In 1881-82 there was no market for the latter in London, and it is suspected now that there would be considerable difficulty in selling even a first-class nitrate property to a company for £1,000,000 sterling, or even a good deal less. In the years 1881-82 the Continent bought all the nitrate it could get, and paid high prices, because the supply was comparatively small. In his reference to the Primitiva Company, the writer above referred to, is again on the wrong track. My report stated that the success of the earlier companies had greatly contributed to the ease with which other enterprises were floated. The Primitiva is precisely one of the companies to which reference was made; but, though an excellent property, it was put on the market at a very moderate valuation. The original shareholders are not to blame that the public rushed the shares up to 600 per cent, premium, and, as the report is to be read, no reflection was made whatever on those who sold either their shares or their grounds at a high price, but an endeavor was made to put before the British public both sides of a difficult question, and to warn them against an unreasonable valuation of what in itself is excellent property. The fact is that to the British investor the nitrate industry is quite a new one, and he apparently thinks that the discovery is as new to the rest of the world as it is to him.

Now that so much of the nitrate production is in the hands of English companies, it would be well to suggest that the English Shipowners' Association should approach the directorates with a view to obtaining greater facilities for loading and discharging at the nitrate ports. It may be of interest to have an estimate of the composition of the price of a quintal of nitrate. It is to-day, June 3, 1889, more or less as follows:

	Dol.	c.
Average cost placed in bulk in the oficina	0	85
Cost of bagging and putting in cars	0	8½
Carriage by rail, 9¼d, say	0	38
Duty, 2s 4d, say	1	08
Port expenses and shipping clear of surf		6¼
	2	46
Against a selling value of	2	60

This calculation takes no account of interest or depreciation. Several of the new oficinas can produce considerably cheaper, and one or two might get down to 2 dol. 5c.; the variable item is the first, namely, cost placed in bulk in the oficina. This depends on the quality of the raw material, its distance from the works, and the class of machinery employed. The latest oficinas have, of course the last modern improvements. The business is profitable enough at present, but we have seen nitrate sold as low as 2 dol. 15c., in which case only perhaps five oficinas could produce at a large covering price. It is not to be inferred that the consumption will not expand to meet the increase of production, which latter is one thing certain: it is to be hoped it will; and though we may have to see prices lowered in order to induce this increase, it is to be expected that the increase will come; at the same time the report warning the investors was very timely. The business of nitrate production is a good, honest business, with a sound natural basis, but even for a good thing one may pay too much; besides, it has risks inherent to itself beyond the question of supply and demand. The disappointing demand for nitrate on the Continent has, it is believed, been partly the result of the collapse of the copper syndicate and Panama Canal Company in France. This tends to hamper banking facilities, and it is to be borne in mind that the greatest increase in the consumption of nitrate last year was in France and Belgium. There is not the least reason to suppose that any of the nitrate companies started in England have been put forward with the desire to swindle the shareholders out of their money, but it is doubtful if all of them will realize the expectations of the present holders of the stock. Competition tends to reduce the margin of profit, and nitrate fields even of the best description get ultimately exhausted. The temptation to increase production unduly is very great, as the cost of production on a large quantity is relatively less than on a small quantity; the charges for administration being appreciably raised. Add to this the special risks attaching to the nitrate industry, and the necessity there is for the individual shareholder to form his own sinking fund, and it will be seen that he is not sufficiently remunerated unless he gets at least 15 per cent. or 20 per cent. dividend.

The following table shows in detail the cost of extraction, transport to the coast, and placing on board ship of one quintal of nitrate of soda:

Cost of 1 quintal nitrate of soda placed on board, and details of said cost:

	Say for 1 quintal. Dol. c.	Dol. c.
General charges—In works for manager and staff of clerks, house expenses, etc	3·00	
Extraction—In works, blasting men, navvies, and cartage	45·00	
Elaboration—In works, for coal and engineers, well and stone breakers' staff	19·00	
Buildings—And unforseen expenses	2·50	
Preservation—Of machinery, buildings, and staff of caretakers	3·00	
		0 72·50
Cost of 1 quintal nitrate of soda in Cancha (for bulk):		
Workmen—For filling sacks and loading trucks (for every 100 sacks) or for 1,000 quintals, 11 dol	1·10	
Sacks and twine—Employed in bagging 1,000 quintals, 70 dol	7·00	
		0 8·10
Cost of 1 quintal nitrate of soda in sacks and placed on trucks:		
Discharge—Of trucks in town, 4 dol. each, or 12 dol. for 1,000 quintals	1·20	
Agency—And warehouse in town, for 1,000 quintals, 12 dol. 40c	1·24	
Shipping—Workmen, 25 dol. 60c, for 1,000 quintals	2·56	
		0 5·00
Cost of shipping 1 quintal of nitrate of soda:		
Commission interests and redemption of capital—For 1,000 quintals, 70 dol	7·00	
Freight—By railway, for any distance 420 dol. 30c., for 1,000 quintals, according to exchange	42·53	
Duties on exportation—For month of July, 1886, premium 51·60 per cent., 1,117 dol. 80 c., for 1,000 quintals	11·78	
		1 60·81
Total cost of 1 quintal nitrate of soda placed on board, exchange at 25½		2 46·41

DYE MARKET

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Oct. 1, 1889.

While the improvement in the trading during the week under review cannot be said to be general, in the market for dyestuffs, some of the articles have been in better demand, the trading, in some instances, being of a speculative nature, and in others the parcels taken have gone into or been absorbed by purchasers for consumption. Prices for some of the articles on the list are unsteady, and have been shaded in order to induce business; for others the reverse is the case, holders being exceedingly firm in their views. The month just closed has not averaged well, and dealers are hopeful that the one just entered upon will witness a change for the better, and the volume of business more than counterbalance that of the past month.

Aniline Colors—A steady consuming demand is reported by dealers, who characterize the market as wholly unchanged from a week ago, and ruling without feature. Prices are unaltered.

Alizarine—Prices continue to be quoted with an easy tendency, and sales have been made at reduced figures, though dealers have as yet made no actual change in former quotations. The low offers have not induced buyers to any particular extent, however, and they have simply supplied their immediate needs.

Albumen Blood has been firm but no demand has existed, and no features are reported. Egg is quoted unchanged, while prices for all kinds are without alteration.

Bichromate of Potash—Dealers report rather more trading than in previous weeks, and view the market with more favor; the demand has been strictly of a jobbing nature, and the parcels moving have been to fill the wants of consumers entirely. Prices have not been altered and have ruled steady.

Cochineal has continued to sell in retail lots at our previous figures, but there is no evidence of activity, and prices have not fluctuated during the interval.

Cutch—There have been sales of say 500 bales Diamond S M on spot, but outside of this the market has continued quiet, with prices weak and in buyers' favor. There is a difference of opinion as to the figures in the above transaction, some dealers naming 4⅞c; but dealers in other quarters are inclined to doubt this, and say they question if sales have been accomplished under 5c.

Divi Divi—We are given a sale of 1,500 bags Maracaibo at a figure in the neighborhood of $35, and this has about constituted the business for the week. There is a good supply available at the moment, with a light demand existing.

Dyewoods—The continued course of the market for stick wood gives further evidence of the resolution of both importers and manufacturers of extracts to hold out against each other, and try the staying qualities. The market has been dull, but little trading having been accomplished. We get sales of a cargo each of Aux Cayes at $23 and Aquin $28, but this has been the extent of the business. There has been a moderate demand for extracts, but the market continues in buyers' favor, and it is not thought that manufacturers would let any reasonable offer go by.

Gambier—Prices for spot supplies have been advanced to 8¼c, in consequence of limited stocks. The monthly statistics will show the market in a strong position as regards stocks, and the next arrival, it is said, is not expected for at least two weeks. We are given sales of say 200 tons, spot and to arrive within the range. October deliveries are quoted at 7¾@8c, and from this down to 6¾c are named according to position. October-November sails shipments are quoted at 6¼c.

Indigo—There has been rather an increased demand in some quarters, the inquiries being principally for low grade Bengals, but as a general rule buyers continue to show a disposition not to handle large parcels, being content to supply their wants as they occur. Prices are quoted steady and unchanged. A jobbing trade of fair proportions has transpired in Madras and Manilla, but values are unaltered, and the market is without particular feature. We are indebted to Messrs. Howe, Balch & Co. for the following, dated Boston, September 24, 1889:

INDIGO—SEASON OF 1889-90.

By cable received to-day from our Calcutta house, the crop is estimated as follows:

Lower Bengal	27,000	maunds.
Behar	60,000	"
Benares	12,000	"
Northwest Provinces, Oude and Doab	37,000	"
Total,	136,000	"

Also to Mr. A. Turner, Jr., for the following dated Boston, September 27: "Messrs. F. W. Heilgers & Co., Calcutta, to-day cable latest estimates indigo crop as follows: Lower Bengal, 27,000 maunds; Behar, 60,000 maunds; Benares and Southwest, 48,000 to 51,500 maunds; total, 135,000 to 138,000 maunds."

Nutgalls—Aleppo galls have continued to sell in small jobbing quantities at former figures but there have been absolutely no features of interest.

China galls have been rather quiet and buyers have apparently taken no interest in supplies at present figures. Stocks continue in only moderate supply, but in the absence of any particular demand this fact has attracted no special attention.

Prussiate of Potash—The several kinds have sold in a moderate jobbing way but the business has transpired in the customary manner, and no features are apparent. Prices are ruling at former rates.

Sumac—Cables from Sicily quote the market lower abroad in consequence of a decline in the asking rates of freights. The trading for both spot and to arrive has been rather light and the market has ruled uninteresting. To arrive the quotations are now $60 50 while spot parcels are quoted at $63. The market for Virginia is somewhat agitated at the moment in consequence of the reports from the South to the effect that the damage which has been caused to the new crop at the ports of production has been very extensive, owing to the excessive rains, and a party who has gone over the ground is quoted as saying that the crop will not be up to the average by from one-half to one-third and that the total production has already been contracted for in the leaf, for the purpose of making extracts, and further, that there will probably be no ground sumac in this market for some time. In consequence, the dealers in this city are exceedingly firm in their views. There are those, however, who regard this information as simply a grand effort to bull the market, and they express no fear that a shortage at this port will occur, as they claim that there are other fields than those noted, in which, as far as is known, no damage whatever to the crop has been sustained. There are reported sales in Boston at $54, but it is not possible to locate the market here, owing to the position of the article.

Starch—Not discouraged by former failures, it is understood that another meeting of the starch manufacturers will be held in Chicago during the current week, but, as in previous instances, the proceedings of the session are without doubt to be kept a profound secret, as was also the fact of there being any meeting. The market, with the exception of potato starch, has ruled without feature. The latter we treat in our editorial column. Trading has been very fair, with prices as formerly, except in one instance.

Tin Crystals—A very fair trade has been passing, and some dealers report that they are sold ahead. Prices are quoted at 15¼c for barrels, 16c for kegs, and 17c for jars.

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The Cinnamon Trade of Ceylon.

The present condition of the cultivation of, and trade in cinnamon is discussed in a recent issue of the *Ceylon Observer* of Colombo. In the days of the Dutch monopoly the Ceylon cinnamon, by far the finest in the world, first-rate rate bark was sold at a pound sterling for a pound in weight, and as late as 1830 the average price of Ceylon cinnamon in the London market was as high as 8s per lb. But with the abolition of the monopoly, and the consequent enormous increase in the export, the price has fallen, so that the price last year was only 1s 3d per lb. In the monopoly days the average export from Ceylon rarely exceeded half a million pounds; but with the removal of restriction, the exports rose to about three million pounds This included not only the baled spice, but also "chips," previously worked up in the distillation of cinnamon oil. The large proportion of these chips introduced into the market at last reduced the splendid Ceylon cinnamon to the level of a competitor with the Chinese bark known as cassia lignea. A combination a few years ago to restrict the export of chips failed; but a new one is being formed for the purpose. Growers have been driven to take this step by the constantly falling price, which was recently down to 9d. Cinnamon bark is used to flavor chocolate and puddings, it is an ingredient in the incense used in some religious buildings, and is a constituent of some patent foods for cattle. In medicine and confectionery the bark and essential oil are used to some extent, while it is combined with sulphur in a new mode of preserving meat. Except, perhaps, in this last direction, there is no prospect of increased consumption of the famous and once costly Ceylon spice. In some parts of Ceylon, especially in the well-known cinnamon groves near Colombo, the shrub is being cleared away to make room for the cocoanut. Besides pledging themselves not to trade in chips, the leading planters agree also not to manufacture cinnamon leaf oil, in the interest of the fine aromatic oil distilled from the cinnamon bark, chips being the residue. The two oils are wholly different in quality and taste, yet attempts have been made to adulterate the bark oil with that from the leaf. The latter somewhat resembles clove oil, and is employed to rub inside the covers of books as a preservative against fungi and insects. It would seem almost impossible to adulterate the bark oil, with its peculiar and delicate flavor, with the leaf oil, for the coarse and pungent odor of the brittle leaves of the cinnamon tree, as compared with the delicate aroma of the bark and its oil, is one of the peculiarities of the plant; yet when one sees the delicate citronella and lemon grass oil of Ceylon adulterated with such a substance as kerosene, one is prepared for any kind of adulteration. The Cingalese prepare from the roots of the cinnamon a substance like camphor, which is made into candles for festive occasions. The bark of the cassia plants of China is greatly inferior to the Ceylon cinnamon, but the leaves have a pleasanter scent; this China cassia is supposed to be the cinnamon of the Mosaic and other ancient writings. However this may be, the Ceylon cinnamon, once so famous and so valuable, has fallen upon evil days, and now, like the silver in Solomon's time, is "little accounted of."

The Supply of Natural Gas.

The one advantage that the Pennsylvania iron workers have had over the Southern iron workers during the past few years has been in the cheapness of fuel where natural gas has been used. But even this advantage has not enabled Pennsylvania iron workers to keep up with the growth of Southern iron interests.

During the past few months the pressure of natural gas has been growing less and less. New gas fields have been sought and every attempt possible has been made to keep up the supply, but all to no purpose. Many large iron working establishments in and about Pittsburgh are now running only part time, owing to the lack of gas. In Wheeling and adjoining regions in West Virginia the natural gas supply has become so seriously lessened that a proposition was seriously considered that the city and county authorities take the matter in hand and drill wells in new fields with the hope of making good the draining of old fields. And now a corporation is organizing in Wheeling for the sole purpose of finding new supplies of natural gas. In this natural gas region many concerns have discarded gas as fuel as too uncertain, and are replacing their coal burners. The coal miners of West Virginia are anticipating a great increase in the demand of coal by this return of manufacturers to coal as fuel.

This failure of the natural gas supply is a matter of great moment to the South, for it means the removal of one of the strongest props which has bolstered iron working in the Ohio valley over iron working in the South. The failure is practically acknowledged by the local press. The ultimate result of this failure will be a great increase of the present iron interest in the South and the more rapid development of the now undeveloped, and, in many cases, unknown deposits of iron and coal in Kentucky, Virginia, Tennessee, Alabama and elsewhere. Without natural gas the Pennsylvania iron workers cannot compete with even their present degree of success in the open markets with the iron workers of the South.—*Manufacturers' Record.*

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The Acidity of Superphosphates.

We have on several occasions pointed out the influence of the acidity of superphosphates upon their fertilizing action, and have observed that a freshly prepared and very acid superphosphate gives better results than a dry article, of the same strength in phosphoric acid, prepared a considerable time before use or artificially desiccated after preparation.

We were unable to cite any scientific experiments in favor of this theory, but were frequently able to adduce facts drawn from actual practice which appeared to us conclusive.

Throughout the region of the Nord, from the sea to Paris, superphosphates are employed with advantage; their action, nevertheless; is not everywhere very apparent to those who only judge by appearances and do not take account of the laws of rotation.

There is, however. a corner of the country, the area of which does not amount to the quarter of a department; where the action of superphosphate is clearly visible, and where it is used even by the most conservative of farmers. It is of this small district, which runs along the coast from Calais to Belgium, with a breadth of from 20 to 30 kilometres. that we wish to speak of.

The annual consumption in this region amounts to seven million kilos. The effects produced are surprising; clover ground with superphosphate, for example, is one-third greater in height than that grown on a similar piece of ground without the superphosphate, and wheat is similarly affected. Even the very smallest husbandman would, therefore, not be willing to farm without the use of this agent.

In this district it is therefore very easy to try the effect of different phosphatic fertilizers. Basic slag has been tried as well as phosphate, but superphosphate has been found superior to both. While 7,000,000 kilos of this are used per annum, only about 300,000 kilos of all the others put together are employed. This point alone is not uninteresting. We have, however, been furnished with numerous facts of still greater interest, which we would like to see confirmed by scientific experiments. In the district of which we have just spoken several manufacturers of manures supply superphosphate. One of these houses is celebrated for the dryness of its products, which are prepared a long time in advance; other less important firms supply a product prepared immediately before being sent out, as this plan effects a considerable saving in warehouse room, labor and capital.

It is only natural that intelligent customers should make annual comparative tests of these different brands, and these tests are the more frequent because the farmers of the district, as of the whole French Flanders, are naturally distrustful. Now the results of these tests show that the freshly prepared article, which is slightly acid, acts more rapidly and more efficaciously than that which has been prepared a considerable time before use. Many comparative tests have proved that slightly moist acid superphosphate, containing 11-12 % of phosphoric acid, gives equally good results as a very dry superphosphate of 14-16 %. From these facts, which have been frequently confirmed, it follows that the artificial dessication of superphosphate is a useless and even dangerous operation as far as the intrinsic quality of the product is concerned. It may also be concluded that the superphosphate does not act solely by means of the phosphoric acid which it contains, but also by its sulphate of lime and its acidity, whether this arises from free phosphoric acid or free sulphuric acid.

M. Aubin, director of the Laboratory Societe des Agriculteurs of France had previously pointed out the influence of acid in superphosphate, but no methodical experiments had been made to throw light upon this question.

We are now, however, able to adduce in support of the opinion, which we had derived from practical observation, scientific experiments conducted at the agricultural station at Forli (Italy), by Dr. A. Pasqualini. The account of this work was published in the annals of the station in 1889, and a short account of it will be of interest.

The object proposed at Forli was to determine by experiment the fertilizing power of phosphoric acid administered to plants in different forms, and especially of comparing the effect of unlimited phosphoric acid with that produced by the acid soluble in water as obtained by treating the phosphate with an excess of some other acid.

The influence exerted by the acid appears quite clearly from these experiments. In the case of Thomas slag, applied with or without acid, the difference between the yields is not sufficiently large to permit the conclusion that the sulphuric acid has any marked influence. This influence is, however, made strikingly apparent by comparison of the results obtained by the use of ordinary superphosphate or slag, with those given by the acid superphosphate. The yield in this last case is the greatest obtained with any of the phosphate fertilizers, used without the addition of nitrogenous matter.

We shall not follow Dr. Pasqualini in his examination as to which manure is the most economical, because the cost of fertilizing materials may vary very widely in different districts. We merely desired to draw attention to the result of treating the phosphate with acid, which is brought out in the above experiments. How this result is brought about, whether by the formation of sulphate of lime or by the action of the acid on the organic constituents of the soil, it is at present difficult to say.—*L'Engrais.*

Synthetic Carbolic Acid.

A German firm has recently introduced a synthetically made carbolic acid to the European drug trade. In our market report last week, brief allusion was made to the new substance which does not yet appear to have attracted much attention. The *Chemist and Druggist* says that the process of manufacture of this synthetic acid is still more or less shrouded in mystery. Our English contemporary presents the following facts concerning it:—

"The melting point of this acid is at 41°—42° C. (106°—108° F.); it boils at the temperature established for pure carbolic acid, viz., 178° C. (352° F.)—that is to say, at 181° C. (358° F.) if the thermometer is enveloped in steam; it is entirely free from water, colorless, and gives a clear solution in water. The most characteristic distinction, however, between the product and that made from tar is the smell, which is described as a 'weak pure smell, not in the least resembling tar.' In an aqueous solution of 5 per cent it is hardly recognizable by the smell, whereas the qualities at present in the trade in similar dilution are still noticeable by an unpleasant odor. The chief point of merit claimed for it, in fact, is the total absence of any disagreeable smell not peculiar to pure phenol, and the immunity from prejudicial by-effects, apt to arise from impurities in carbolic acid. The synthetical acid is offered liquid or in loose crystals. The price of the new acid is very considerably in excess of that made from coal tar, and, though improvements in the method of manufacture, and, perhaps, competition, may shortly bring it nearer to the price of the coal tar product, the discrepancy, will, undoubtedly, greatly affect its use. The principal effect which we anticipate for the new acid at present is that the fact that it can be turned out in unlimited quantities will operate against an undue rise in the coal tar acid, and tend to keep the quotation for the latter down to a reasonable level. The new acid has a distinct smell of carbolic, though less pronounced than the coal tar acid, and we understand that, like the latter, it is liable to the drawback of turning red."

The present quotations for the synthetic acid are 1s. 7d. to 1s. 9d. for liquid in large quantities—say 10 tons—and 3d. more for crystals, or about 6d. to 1s. per pound more than the London market prices for carbolic acid made from coal tar.

The Purity of Creosote.*

BY W. BRANDES.

The importance gained by creosote as a therapeutical agent lately, justifies the anxiety of physicians to always obtain absolutely pure creosote from all pharmacists. This is only possible, however, provided the tests of the Germon Pharmacopœia be such that the purity of creosote can unquestionably be ascertained by them. To satisfy myself on this point, I experimented with these tests as prescribed by the Pharm. Germ. Ed. II, and arrived at the following conclusions:

The wide margin allowed by the Pharmacopœia in the specific gravity, 1,030 to 1,080, must appear unusual, and is not justifiable, as I will prove hereafter.

The pharmacopœial test to mix creosote with caustic soda solution requires a correction, because it does not positively prove the entire absence of neutral oils, the lye being too concentrated, and moreover only adequate for one-half the saturated solution. A positive test can be made by the process suggested by Hartmann & Hauers, however, by which 4 ccm. water, 4 ccm. caustic soda solution and 2 ccm. creosote are mixed; this must yield a perfectly clear, amber solution, or prove the presence of neutral oils; if the solution is brown it shows that some impure coal tar particles still remain in the creosote.

In making the pharmacopœial collodion test it is necessary, to prevent incorrect deductions, to be very careful that the collodium be not sour, and that the vessel used be perfectly dry.

Pure creosote will not stand the pharmacopœial test with caustic ammonia solution, as a greater percentage of creosote than required by the test will be dissolved by this solution. This can best be proved by making the ammonia test on pure guaiacol and pure creosol, the two principal constituents of creosote. Comparative tests gave these results.

2 ccm. Guaiacol and 20 ccm NH_3 sol. = ¼ ccm. clear separation.

2 ccm. Creosol and 20 ccm. NH_3 sol. = ⅛ ccm. clear separation.

2 ccm. Phenol cryst. and 20 ccm. NH_3 sol. = clear solution.

2 ccm. Phenol, so-called 100% liquid and 20 ccm. NH_3 sol = clear solution.

2 ccm. Phenol, so-called 100% liquid (cont'g cresol) and 20 ccm. NH_3 sol. = ½-⅛ ccm. dark separation.

Creosote, not wholly pure, and containing some foreign particles of coal-tar, will occasionally stand the test: therefore, it should be correspondingly altered. As by above comparative results it can claim no positive value it would be best to drop the ammonia test altogether. The proof positive of the entire absence of phenol (carbolic acid), cresol (cresylic acid) and all impurities in a creosote is furnished by the glycerine test of the pharmacopœia. This test is sure and safe, and by means of it the added or present phenol may be almost quantitatively adduced.

Besides these tests of the pharmacopœia, the following, proposed by Hartmann & Hauers, is worthy of consideration. If 2 ccm. creosote, 4 ccm. petrol. benzine and 4 ccm. of a cold saturated caustic barytes solution are shaken together, the benzine solution should not assume a blue or dirty, nor the aqueous solution a red color. A color reaction would show the presence of foreign particles (other besides neutral oils) of beech wood tar, and consequently that the creosote was not sufficiently purified.

In making this test it will be found that the mixture will either separate in three layers, caustic barytes solution, creosote and benzine, or in only two layers, caustic barytes solution and a solution of creosote with benzine. These varying conditions are explained by the fact that an impure guaiacol is insoluble, but a pure creosol soluble in benzine. If these two constituents are present in the the necessary proportion the solution is promoted to a certain degree by the creosol. The solution (or perfectly suspended mixture) does not ensue if the creosote contains a particularly large percentage of guaiacol, or of phenol or cresol, as phenol or cresol, either alone or in mixture, are insoluble in benzine If the absence of phenol or cresol is proved by the glycerin test, therefore, the insolubility (i. e. the separation of the mixture into three layers) proves the large percentage of guaiacol in the creosote, and consequently its purity.

Employing these various tests I instituted a comparative examination of prominent brands of creosote, the results being noted in accompanying table:

Comparing the statements for Nos. 1 and 5, must appear strange that sample No. 5 stood all pharmacopœial tests despite the gr. at difference in specific gravity.

Creosote should be primarily a mixture of guaiacol and creosol. These two are its active constituents and establish its value. Now, as the specific gravity of pure guaiacol is 1,117 at 15° C., and that of pure creosol is 1,089 at 13° C., proving that pure creosote should be of high specific gravity, the sample No. 5 cannot possibly be of such quality, and viewing the pharmacopœial tests after these arbitrary results, it seems clear that they really do not produce a reaction for guaiacol and creosol. Such reaction is found in the property of guaiacol and creosol in forming difficulty soluble potassium salts in alcohol, as described by Hlasiwetz. To make this test an alcoholic potash solution is prepared by dissolving 50 grm. caustic potash, in sticks (by alcohol) in 200 grm. rectified alcohol; 10 ccm. of this solution and 1 ccm. creosote are shaken in a test tube, and the whole contents will crystallize into a solid mass in a short time. This test was perfectly accomplished with sample No. 1 but No. 5 remained liquid without a trace of crystallization, thus proving that it contained neither guaiacol nor creosol. As the other tests proved in addition that the sample contained no phenol and no cresol, it is probable that it consisted of xylenol and phloral, homologous products of cresol, of the same boiling point, and proved by Tiemann and others to be present in the coal tar distillate. The similar specific gravity (1,036) of xylenol and phloral emphasizes the assumption of an identity with sample No. 5.

Considering that a creosote lacking these active component parts, and therefore not deserving of the name creosote even, may—by virtue of existing pharmacopœial requirements—be employed for internal administration unhindered, it becomes a matter of serious import. A product like this makes a cure impossible and brings the pure remedial agent into disrepute, as the physician probably will never know the real cause of the failure.

All these facts point to the urgent necessity for a revision of the pharmacopœial tests. The importance of the specific gravity as an indication of the purity of creosote is fully demonstrated in the foregoing, and it would be well, therefore, to limit the spec. grav. to 1,070, to 1,080.

The additional stringent test by means of the caustic potash solution should be adopted in this manner: 10 ccm. alcoholic caustic potash solution (prepared as described in foregoing) shaken with 1 ccm. creosote in a test tube must crystallize in a solid mass in a short time, which must retain its solidity for over half an hour, the warmth of the reaction having disappeared, even under vigorous agitation.

If these suggestions are adopted in the revision of the tests of the Pharmacopœia, the guarantee will be furnished for an actually pure creosote for medicinal use.

At the same time it would be pertinent to finally establish a maximum dose for internal administration, Huseman having demonstrated that creosote is without toxic effect on the human organism and physicians will no doubt incline to give increasing doses.

* Translation from *Archiv de Pharmacie* in *Notes on New Remedies.*

Samples of creosote.	Spec. gravity at 15° C.	Color.	Odor.	Glycerine test Ph. Germ. II.	Caustic soda test of Hartmann & Hauers.	Collodion test, Ph. Germ. II.	Ammonia test Ph. Germ. II.	Caustic barytes test of Hartmann & Hauers.
Hartmann & Hauers, Hannover.	1,075	slightly yellowish.	smoky.	insoluble.	clear, light solution.	perfectly suspended mixture.	one-half soluble in caustic ammonia solution.	separation of creosote, barytes solution and benzine, colorless.
T. Morson & Son, London	1,070	slightly yellowish.	strongly smoky.	insoluble.	opalescent, and later clear, light solution.	perfectly suspended mixture.	one-half soluble in caustic ammonia solution.	creosote, colorless, dissolved in benzine, barytes solution of violet tint.
A discontinued brand.	1,045	brownish red.	tar-like.	the volume of the creosote increased 10%.	darkly colored, clear solution.	gelatine formation.	one-half soluble in caustic ammonia solution.	both benzine and barytes solutions strongly discolored.
Of unknown manufacture.	1,064	brownish red.	tar-like.	the volume of the creosote increased 10%.	dark-brown turbid solution with subsequent oily, brown sediment.	gelatine formation.	about one-quarter soluble in caustic ammonia solution.	both benzine and barytes solutions strongly discolored.
A German brand.	1,045	yellowish.	strongly smoky.	insoluble.	clear, light solution.	perfectly suspended mixture.	about one-quarter soluble in caustic ammonia solution.	creosote, colorless, dissolved in benzine, barytes solution, colorless.